

THE ARCHITECT & BUILDING NEWS

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ONE SHILLING WEEKLY

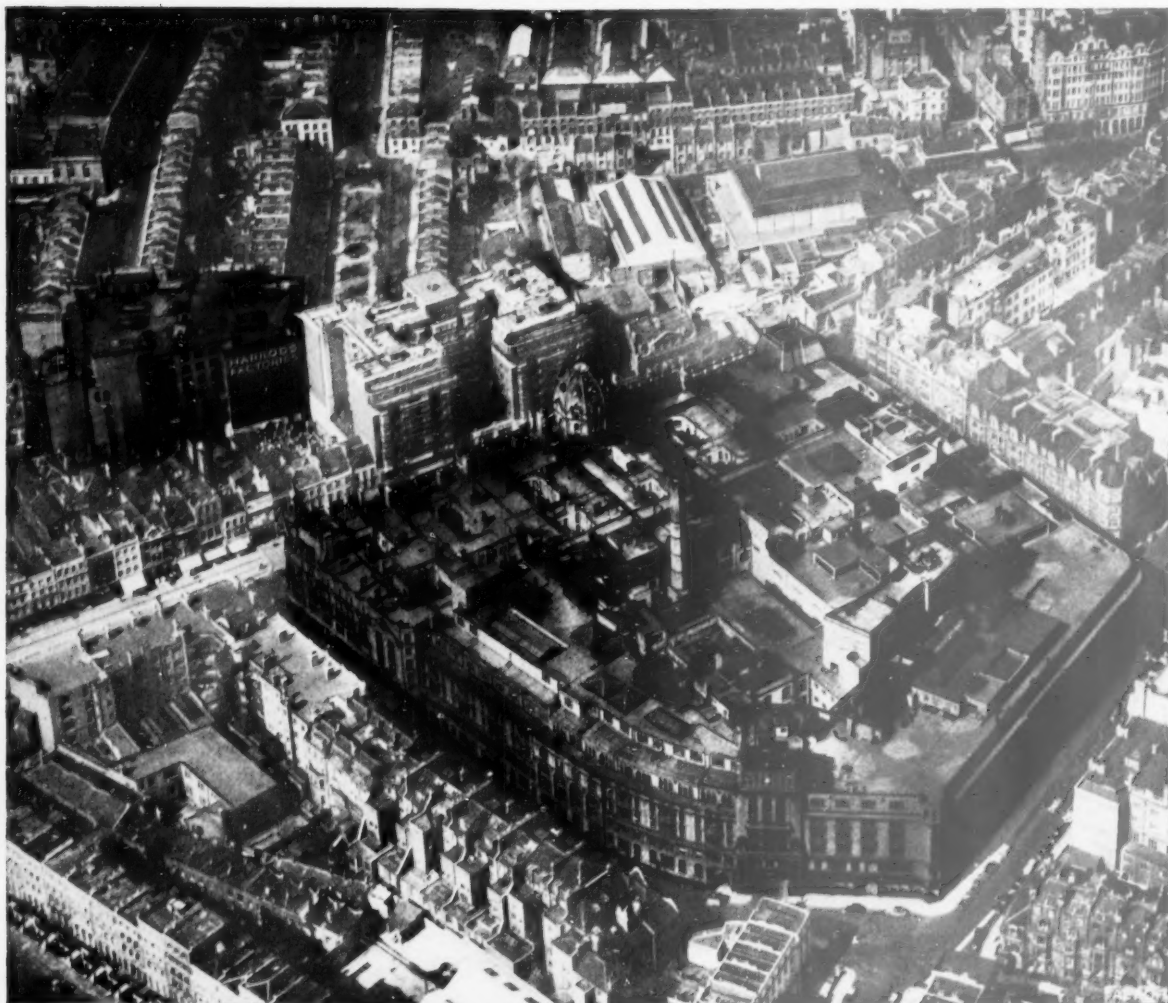


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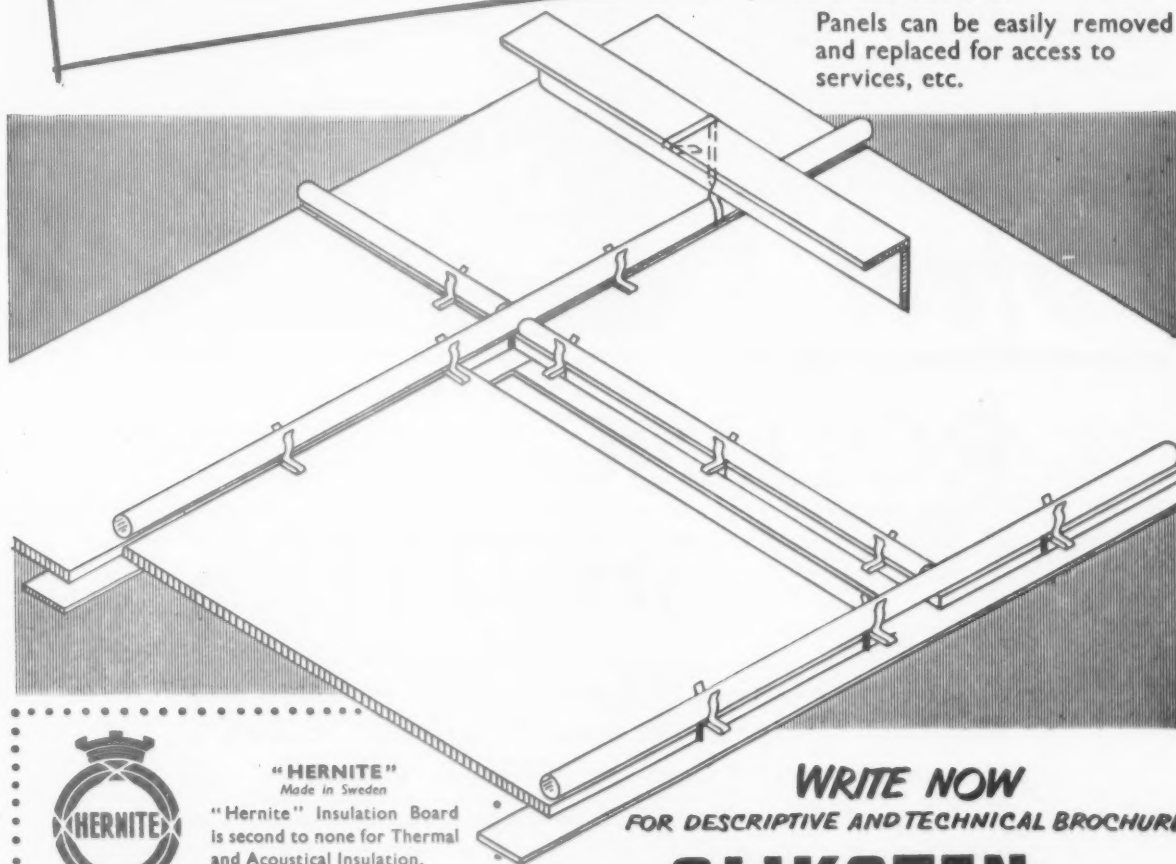
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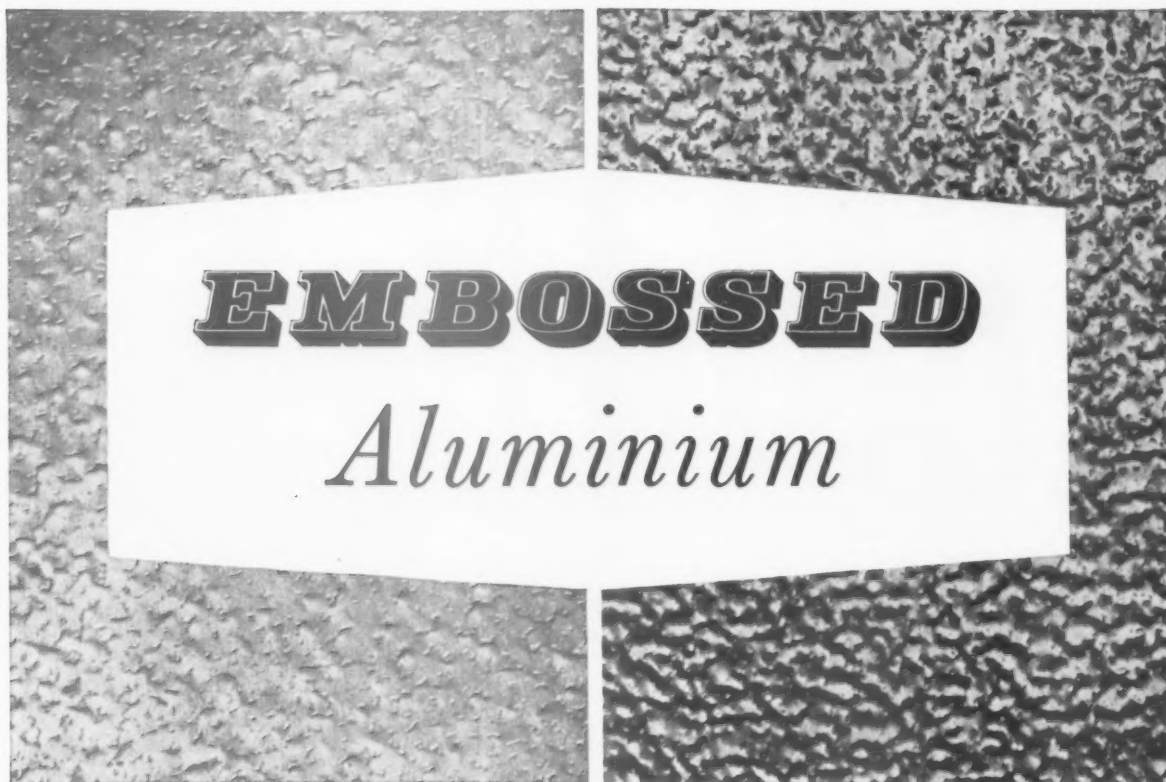
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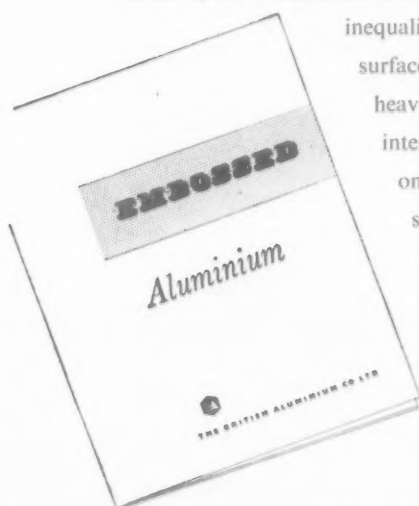
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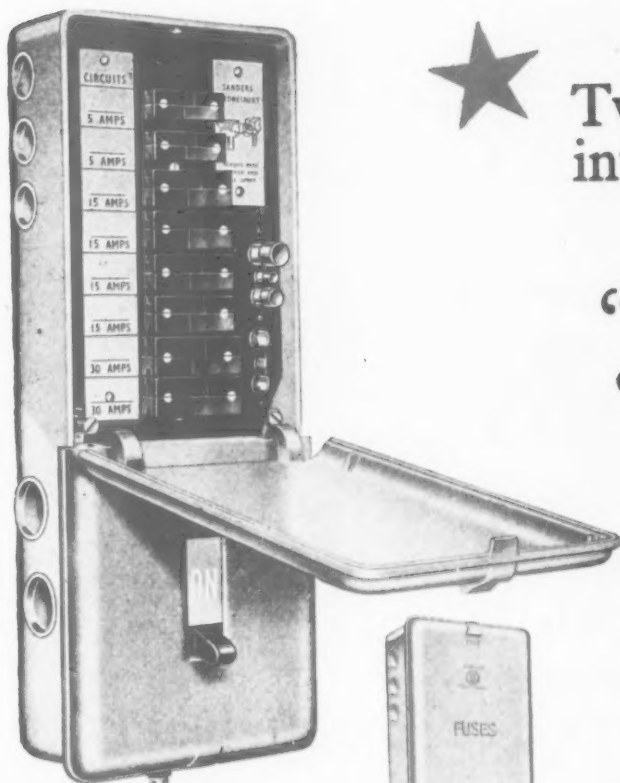
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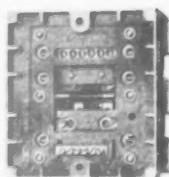
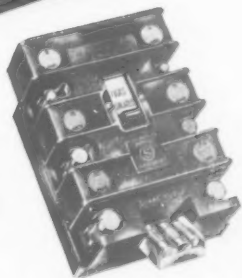
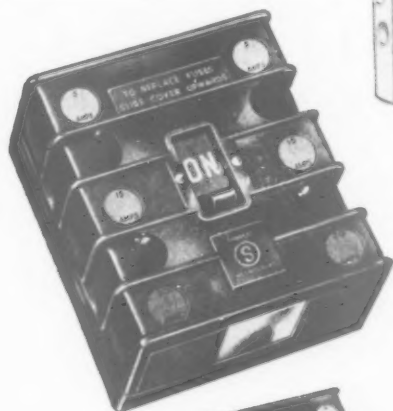
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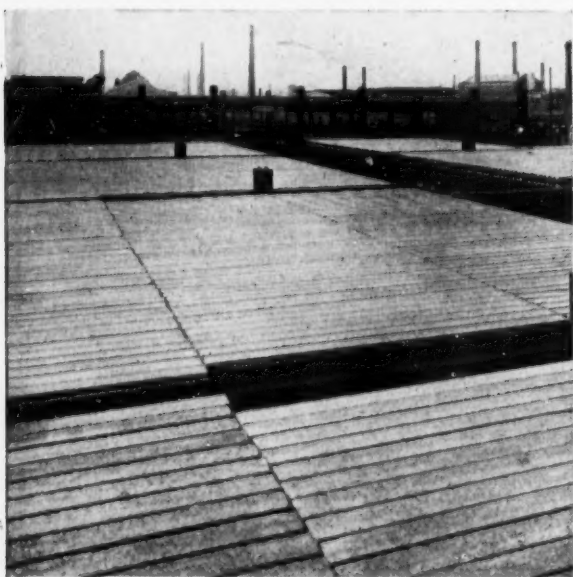
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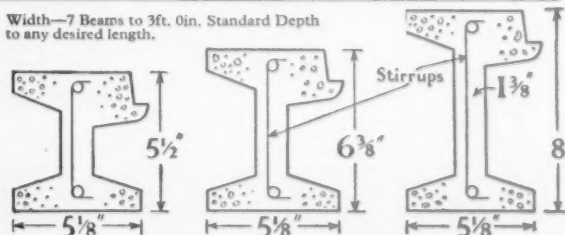
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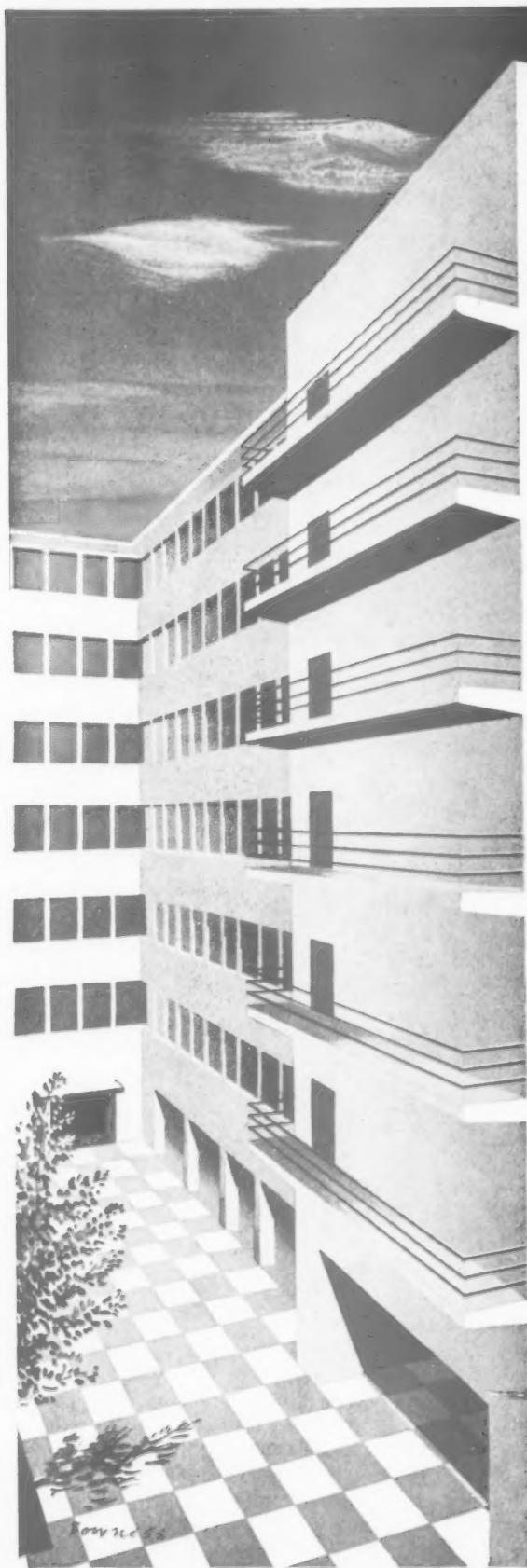
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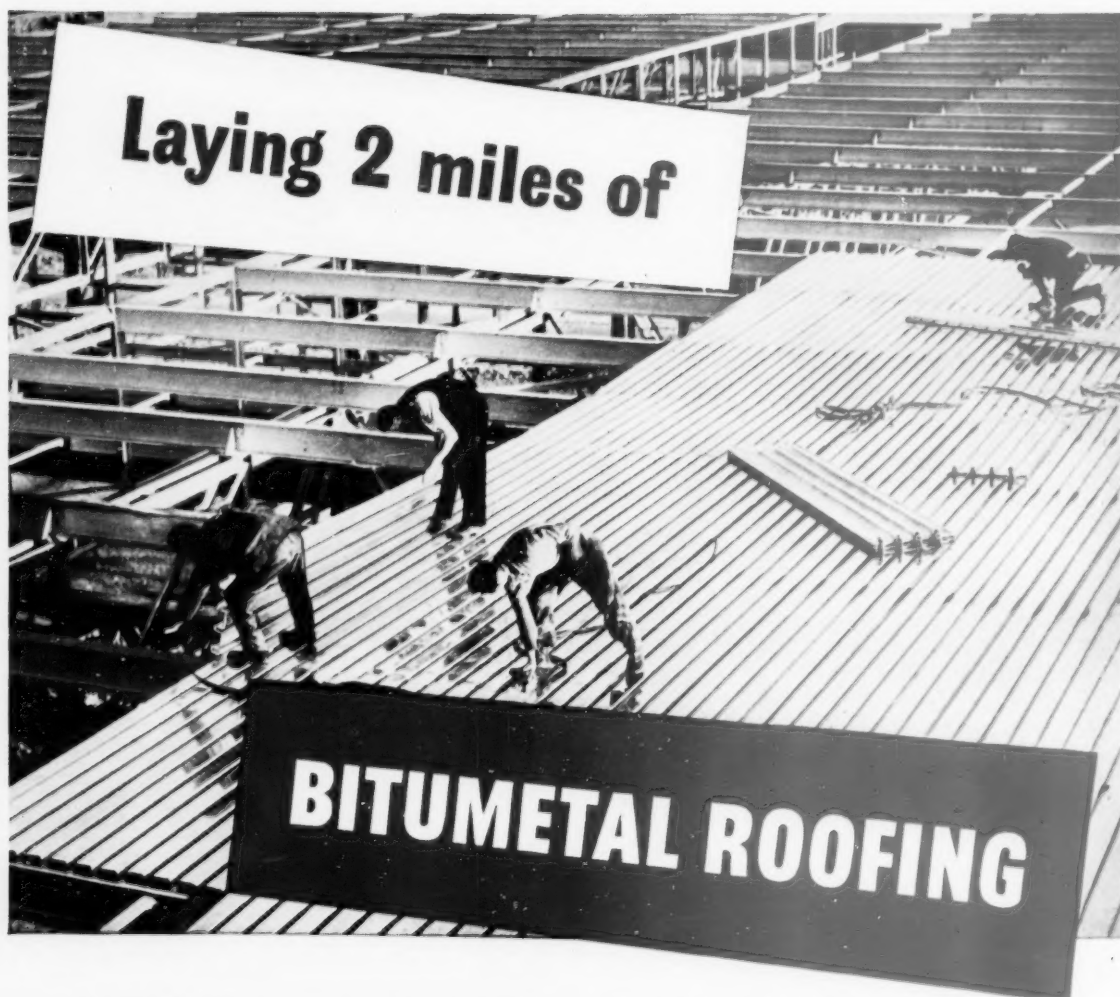
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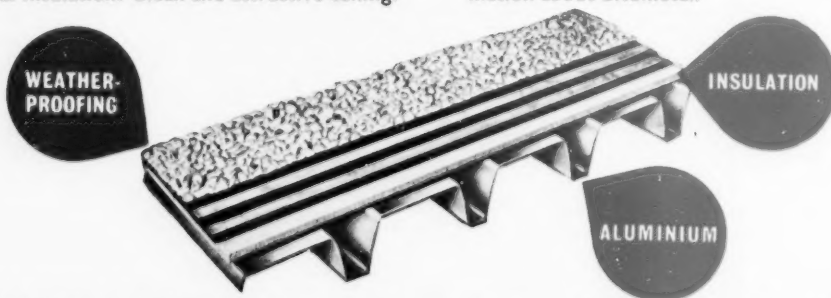


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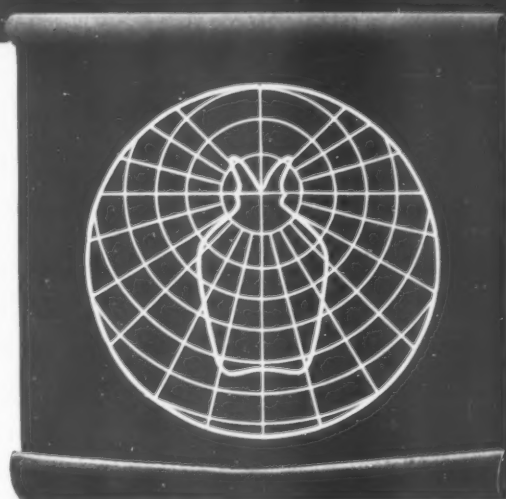


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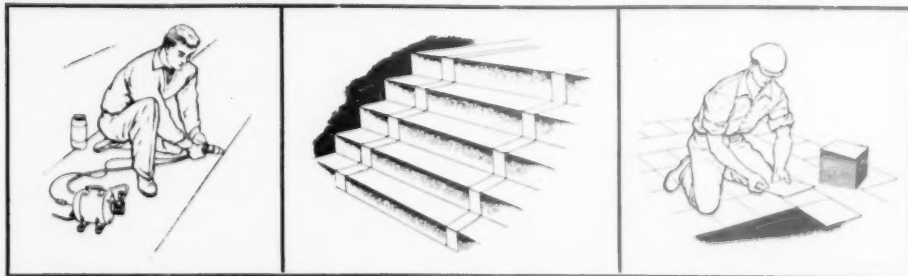
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A NEW INTERNATIONAL AID FOR BUILDING

THE Economic Commission for Europe, working from the European Office of the United Nations at Geneva, has set up an organization of great potential interest to architects and all others concerned with building.

It is the International Council for Building Research, Studies and Documentation, a non-governmental rather than an inter-governmental body (like the E.C.E.'s Housing Sub-Committee), with representation from some thirteen European countries and about forty separate organizations as technical members. It has recently held its first General Assembly. The representatives of Great Britain are Dr. F. M. Lea and Dr. T. W. Parker, Director and Deputy Director respectively of the Building Research Station.

The three permanent sections within which the work of the new Council is to be conducted are Experimental Research, Studies and Application of Results of Research, and Documentation; these sections, in order to ensure the necessary decentralization of work, have technical secretariats established in London, Paris and Rotterdam respectively.

The work of Experimental Research will be concerned not only with new and special initiation of research but with the exchange of information on work completed, under way or projected in any of the countries of the constituent members.

The programme of work proposed to be done by the Studies and Application of Research Section is a very wide one and presumably is intended as a long-term policy directed by stages to the most important subjects now affecting building progress (or the reverse) in most European countries. It includes, for example, the soundproofing and thermal insulation problems of buildings and, in particular,

those of houses and flats; factors of safety necessary to combat natural forces such as snow, wind, earthquakes and temperature variations; the influence of height and layout of rooms on the cost of houses; the regularization of reinforced concrete calculations; the effects of standardization and a number of other matters ranging from slum-clearance to the modernization of the equipment and tools of the craftsman.

The third Section—Documentation—will continue the work of the former Council for Documentation (I.C.B.D.), aiming at effective means of documentation and its distribution to users of information from all sections. It is to set up a working party to examine rational utilization of documents and information in the offices of architects, engineers and other building technicians and will work in close liaison with U.N.E.S.C.O. and the I.S.O. (International Organisation for Standardisation).

A body of this kind is badly needed. In the first place to organize in assimilable form the interchange of new ideas and techniques and, in the second place, to keep existing organizations in the various countries on their toes and to combat isolationism.

The proof of the usefulness of the new Council must be in its future activities and work. There is always a danger that new efforts of this kind may become bogged down in the complexities of organization and even sometimes are inadequately operative because of lack of funds or lack of support. We hope that none of these things will happen and the British building industry will realize that it has a new contributor to greater efficiency and will give full support and take interest in the work that lies before the new Council. Success lies here in mutual aid and in an appreciation of the results of individual effort towards a common end.

EVENTS AND COMMENTS

CHALLENGE TO ARCHITECTS

Mr. Ernest Marples, Parliamentary Secretary to the Ministry of Housing and Local Government, in a recent speech, said that architects generally had failed to grasp what few opportunities they had had since the war (note the word few). "Æsthetically they have not been bold or convincing, and financially their creations have been too costly."

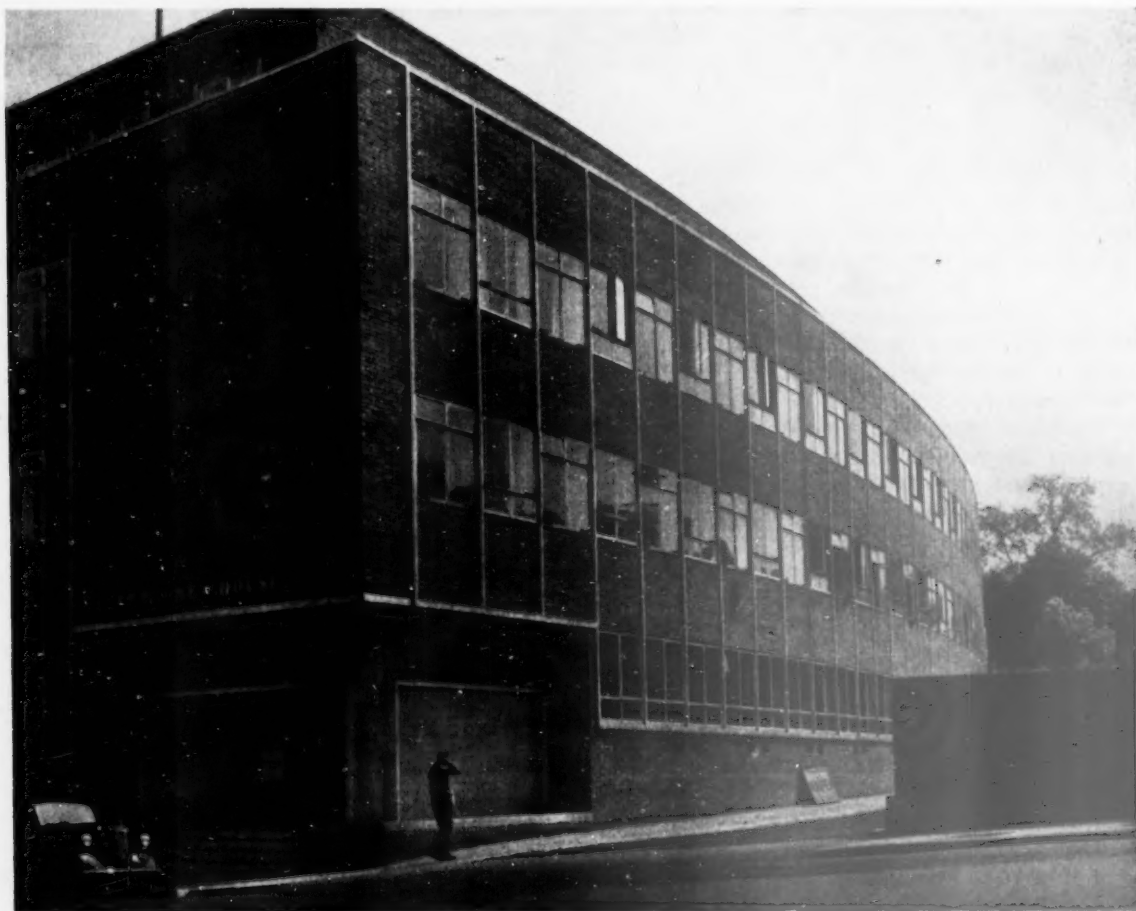
He also told architects that they should reorient their outlook and design for a country that is no longer rich (as if they had not found that out!). "We need buildings which can be built quickly, cheaply and which can be maintained at low cost, and which have clean, simple and attractive lines. It is a great challenge to architects." (It is, indeed.) Easy to say. How to do it? Buildings with clean and attractive lines are seldom built quickly. Buildings built cheaply usually have high maintenance costs. And where does the bold æsthetic approach come in? Surely that would increase cost and take time unless someone is either very lucky or a super genius? Mr. Marples went on to say that architects must have more ventures with builders and that old outmoded professional conven-

tions must be abandoned. They must indeed, but what precisely has Mr. Marples in mind? The best contribution the politician can make is to avoid vague generalizations and substitute more precise—even technical—terms. Then we shall know whether we agree or not. From what I hear, architects are finding that designing small houses is rapidly becoming uneconomic, but no profession since the war has cudgelled its brain to the same extent as architects have to design for quick erection at low cost. Mr. Marples predicted that "Freedom in building was likely to broaden." A disquieting phrase. The impression I have from looking round at the buildings put up over the last 100 years is that freedom to build has been about as broad as it is possible to be. However, if you feel a sinking feeling, read the next paragraph.

TAKING THE ROUGH WITH THE SMOOTH

Hare Soup and Gooseberry Fool are each delightful dishes—that is, when served as separate courses. If mixed together, and served as one—well, the imagination—and the stomach—boggles.

Should the chef argue that we must take the rough with



Ministry of Works photograph, Crown Copyright Reserved

New office building for the Telephone Manager, North Area London Telecommunications Region, Crouch End Hill, designed in the Chief Architect's Division of M.o.W. by Mr. F. W. Holder, B.Arch., F.R.I.B.A.



New Magistrates Court at Uxbridge for Juvenile Offenders, which was opened on July 24.

the smooth, we would soon tell him to change his vocation or, alternatively, hold him in conversation until help arrived.

This point having been made, and unanimously agreed, let us probe into other spheres of activities where the principle of taking the R with the S (as Mr. P. G. Wodehouse might condense it) is accepted without demur. Street Furniture, to take one at random. In Highgate Village (S) you have to take those concrete lamp-standards (R) whether you like it or not. If you stroll in Kew Gardens, the chances are a characteristic smell from the Brentford direction will prevent the scent of flowers from becoming too cloying, and that sufficient aircraft will drone overhead to ensure that the quiet does not become oppressive. The R and S again.

Once you get used to the idea and accept it, everything falls into place and becomes clear.

The juxtaposition of St. Pauls with more mundane buildings no longer affronts. One is the foil to the others in the manner of a Grande Dame with her negro boy attendant. But, you may object, should there be so many negroes, has not the thing been overdone? If so, this is a sign of incomplete acceptance of the R and S principle—the Hare soup and Gooseberry Fool still being boggled at, so to speak.

Take the coastline. Here the S is, of course, the vacant beach, the empty fields. Add the R—a hundred or so caravans, shacks and some tons of assorted litter and the balance is restored. The thing vibrates nicely.

Are you getting the idea? No?

Well, what is the alternative; kicking against the bricks; turning sour on contemporary life (R); writing letters to the *Times* (S), or criticizing the Royal Fine Art Commission (R and S).

We felt this way once. It was awful.

The sight of a "Woolworths" next door to "The Silver Swan" caused a flow of adrenalin into the blood-stream with all that that implies. All this was in the days when the S and R principle had not become our philosophy. To-day we are a different man. How diverse, we say, how all-too-human. Hare fool and Gooseberry soup true, but how intriguing.

Perhaps you have been unhappy in your work—a feeling of strain, of paddling against the stream. Perhaps you are

trying too hard. Worrying about design. Possibly, even, trying to imitate those clever chaps whose work is always appearing in "Hugh's Who."

Drop it. Relax. Be yourself. Once you turn round and go with the stream everything will change. Express yourself in all your aspects. Turn your back on perfectionism and let your clients take the R with the S. (They will not notice the difference and will think you have been left some money.) After all, that is what all those other chaps do who keep doing all the things listed earlier under heading R. It is like shaving, it doesn't hurt at all when you do it yourself. "Those that can, do," as the sage G.B.S.—note the S in this context—observed. Go over to the enemy and hoist the Jolly Roger.

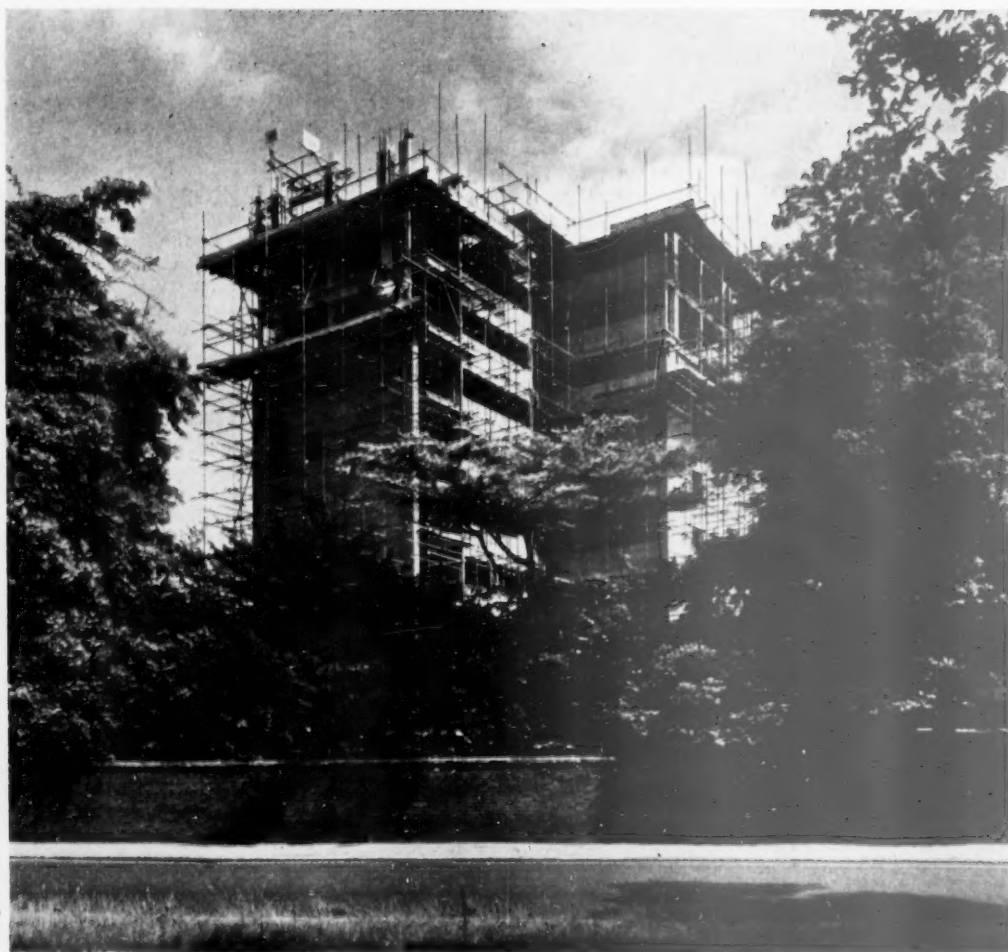
Once this strategy of penetration from within is grasped it will gather you with its impetus. Going with the stream with one hand, and out-Heroding Herod with the other (as we are in this article), after a few years there will be something to show—the budding of the Uninhibited Style. You will no longer be bothered by all those booklets that come out, written by frustrated chaps who cannot stomach smog and wince when trees in streets are pruned to the bone. Let *them* beg *you* to colour-wash your housing schemes. Plant geraniums with lobelias in lozenge-shaped beds and to Hell with Acanthus in Swedish pots. When you run out of inspiration you can always crib from books on the French Exhibition of 1924 or whenever it was and think what fun you can have with six-storey blocks of flats in the way of bands of brick-work in two shades of spam with miles of concrete access balcony hitting the staircase vertical window a wallop. Is not this better than advising chaps to grow creeper over gas-holders and to follow the handbooks on the design of stiles and clothes-props or else? Make up your mind, are you a sheep (S) or a goat (R)—smooth sheep and rough goats clear up any confusion here.

Think it over and let us know when you are with us.

Abner is back from his holiday and will write his usual column next week.



Photos : John McCann



The photos on this page show an LCC 10-storey block in the Wimbledon-Putney area now in course of construction, and (top picture) the view from the top of the same block. On the facing page is a view of a model from the S.E. showing the Portsmouth Road development in the foreground with beyond it the proposed new scheme for Roehampton Lane, Wandsworth.

PROPOSED DEVELOPMENT BY THE L.C.C. ROEHAMPTON LANE SITE, WANDSWORTH

The scheme has been prepared by the Housing Division of the Architect's Department of the London County Council. DR. J. L. MARTIN, M.A., F.R.I.B.A., Architect to the Council, in succession to ROBERT H. MATTHEW, C.B.E., A.R.I.B.A., WHITFIELD LEWIS, A.R.I.B.A., Principal Housing Architect. MICHAEL POWELL, B.A., A.R.I.B.A., Assistant Housing Architect. COLIN LUCAS, B.A., F.R.I.B.A., Architect in Charge. G. F. BAILEY, A.R.I.B.A., Assistant Architect in Charge. Architects: JOHN PARTRIDGE, A.R.I.B.A., STAN AMIS, A.R.I.B.A.; BILL HOWELL, D.F.C., M.A., A.R.I.B.A.; JOHN KILLICK, A.R.I.B.A. Mr. W. V. ZINN, B.Sc., M.I.S.E., has been appointed to act as consulting civil and structural engineer for this development. The structure of the high maisonnette and point blocks has been designed by him.

THE comprehensive development of a number of large sites in the Putney-Wimbledon area was decided upon by the Council in 1948 and a form of development for the last of the sites (Roehampton Lane Nos. 2 and 3 sites) was approved in principle in 1952. The Housing Committee of the London County Council have now approved the following detailed scheme, particulars of which were, on Tuesday, 28th July, laid before the Council. The total estimated cost is approximately £5,025,000.

During the preparation of the scheme there have been consultations with the Ministry of Housing and Local Government, with the Ministry of Works in view of the fact that the site adjoins Richmond Park and with the Wandsworth Metropolitan Borough Council.

The Site

The site which covers nearly 100 acres is bounded on the south-west by Richmond Park and on the north by Roehampton Lane and Clarence Lane. Its character is varied, including fine parkland, closely wooded areas, orchards and gardens. The main portion of the site falls from both sides into a valley which is steeply sloping at the

Roehampton Village end and evens out into flat land at its extreme end in the field to the north-west of Mount Clare.

Existing Development

Existing development affecting the site has received special consideration.

In the neighbourhood as a whole are two large houses, one of them Manresa College and the other Maryfield Convent. The grounds of these establishments occupy in all about 50 acres. By negotiation with the Roman Catholic authorities, an exchange of land has been agreed which has not only improved the layout of the housing on the site, but has also resulted in a better disposition of the land used by these two organizations.

The land acquired by the Council includes certain buildings of historic interest, which will be preserved and brought into the development. Perhaps the most interesting of them is Mount Clare. Mount Clare consists of three wings; the centre and east wings are of 19th and early 20th century construction. The west wing was built in 1772 by George Clive, a cousin of Lord Clive, whose home at Esher was called Claremount.

Extensive work has already been carried out by the Council to preserve

Mount Clare. The eventual use of the building has not yet been settled, but it is hoped that it will eventually take a natural place in the housing community of which it will now form part. The housing layout has been designed to ensure that Mount Clare remains in its proper setting, and is seen to its best advantage from different parts of the site.

At the head of the large field opposite Mount Clare is another building of historic interest known as Downshire House, which the Council intends to use in due course as a community centre and health centre. In regard to both this building and to Mount Clare, the Council has given a formal undertaking to the Ministry of Works that they should be preserved. Downshire House is a brick building in the Georgian tradition, and its grounds are well landscaped and include some very fine trees. Adjoining it is a small building, also of historic interest, known as Cedars Cottages. In the design of the housing layout, special emphasis has been put on the preservation of the magnificent vista in front of Downshire House—the "Downshire Field." In spite of considerable pressure to make use of this large open space for building, it has been found possible by

THE PROPOSED
NEW SCHEME



careful planning, to preserve it as a wide stretch of open land, and it is on this that the whole treatment of the layout in this area depends.

There is a further property adjoining Downshire House known as Hartfield House, which the Council is using as a Children's Home. This building is not of great architectural interest, but its function in relation to the layout is important, and in due course it will form part of the community as a whole.

The planning problem has been to achieve a density of 28 dwellings (100 persons) to the acre in a manner which will ensure proper regard for the very special characteristics of this magnificent site, which is more varied and in certain areas much bigger than the Portsmouth Road site which adjoins it.

The problem has been solved by using a mixed development of flats, maisonnettes and houses and treating each part of the site separately yet in harmony with the whole. The gross density has in fact been kept down to 25.21 dwellings to the acre.

Two areas, one adjoining Mount Clare and the other on the steeply sloping land below Hartfield House, are eminently suitable for eleven-storey point blocks and fifteen of such blocks are proposed for these sites.

The big open field below Downshire House has received a different treatment, in keeping with the magnificent scale and parklike character of this portion of the site. Five eleven-storey maisonnette blocks have been sited along the top of the field but so arranged that they present the minimum effect of mass when viewed from Richmond Park.

The paddock at the western end of the site will remain undeveloped so as to preserve a green link between Richmond Park and Barnes Common. Its use as a school playing field will be considered.

The remainder of the housing accommodation consists of four-storey maisonnettes, two- and three-storey houses and single-storey dwellings and one eight-storey block which stands at the head of the vista leading up to the main shopping centre adjoining Roehampton Village.

The single-storey houses intended for old persons have been arranged in a less formal manner than hitherto by the staggering of party walls.

The three-storey terrace houses will have separate access from Roehampton Lane.

Types of Dwellings

The types of flats, maisonnettes or houses which will be built are:—

(a) the point flats eleven storeys in height with two two-room flats and two three-room flats on each floor. On the lower ground floor access is provided to tenants' stores, refuse chamber, hall, lifts and stairs.

(b) High maisonnette blocks eleven storeys in height (except for one eight-storey block). The maisonnettes are



Roehampton Lane Scheme: two montage photos showing how the 11-storey blocks will look from Downshire Field (top) and Downshire House. The plan of the 11-storey block (3-room dwelling; overall area 705 sq ft) and a montage showing the interior of the living room, are shown on the facing page.

served by an access gallery, a common staircase and two lifts.

(c) Four-storey maisonnettes and maisonnettes over shops.

(d) Three-storey terrace houses (specially designed). The accommodation consists of an entrance lobby, W.C., internal store, fuel storage-dust-bin space (with separate approach) and large dining kitchen on the ground floor; living room and double bedroom on the first floor, two double bedrooms and bathroom and W.C. on the second floor. The dining kitchen on the ground floor opens on to the garden and is heated by an independent boiler with an openable front, which also serves a radiator in the living room above. The living room is provided with an open fire. Pram space is provided under the stairs.

Areas

Dining kitchen: 150 sq ft, store: 61 sq ft, living room: 187 sq ft, bedroom (1st floor): 135 sq ft, bedroom (2nd floor): 128 sq ft, bedroom (2nd floor): 110 sq ft, overall area (including store): 1,124 sq ft, aggregate living area: 337 sq ft.

These houses meet the difficulty of providing for families with children, more space than is available in a flat or maisonnette and at the same time attain a reasonable density of population on limited sites. The design is contained within a 15 foot frontage.

(e) Two-storey terrace houses having four bedrooms, living room and full dining kitchen. This type of terrace house is reserved for sites on which back access can be provided. The arrangement of the garden store as an integral part of the rear garden wall is a special feature of these houses.

(f) Single-storey houses for old persons.

The development comprises 1,875 dwellings, i.e., 5 eleven-storey maisonnette blocks—(375 maisonnettes); 15 eleven-storey point blocks—(660 flats); 1 eight-storey maisonnette block, 26 four-storey maisonnette blocks—(615 maisonnettes); 30 maisonnettes and 6 flats in the shopping centres; 29 three-storey houses; 104 two-storey houses; 56 homes for old people; as well as 26 shops; 73 garages and 2 public houses.

Sites are being reserved for a children's home, three nursery schools,

two primary schools, a secondary school, a non-conformist church, a health centre, community centre, main and subsidiary shopping centres, a maintenance depot and a club for old people.

Central heating and domestic hot water is proposed for the high maisonnettes and point blocks to be supplied by a central oil-fired boiler plant. This has been made economically practicable by the larger number of units served and the way in which they are grouped.

This heating scheme has been designed so as to be capable of serving not only the 1,035 dwellings in the eleven-storey blocks but also the two primary schools, the nursery school, the old people's club, the maintenance depot and the existing Downshire and Hartfield Houses. The boiler house will be sited sufficiently near one of the eleven-storey blocks to enable the flue to be built as part of the block.



NEWS IN BRIEF

The Rome Scholarship

The Faculty of Architecture of the British School at Rome regret to announce that they have been unable to recommend any candidate for the award of the Rome Scholarship in 1953.

British Standards Institution Moves

By Monday, August 17, the British Standards Institution will be in full operation at its new premises: No. 2, Park Street, W.1. (Telephone No. MAYfair 9000.)

The removal will extend over the whole of the preceding week. Although during this period it will inevitably cause some disturbance of day-to-day activities, the B.S.I. has arranged that services to its members and Committee members will be fully maintained.

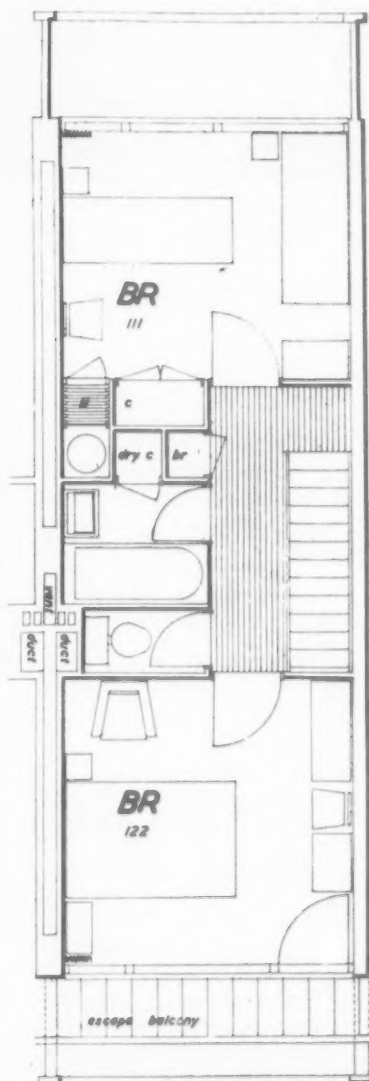
As already announced, the new building will contribute to more efficient working by concentrating the B.S.I.'s scattered departments under one roof. It will also provide increased and more convenient accommodation for the 13,000 specialists who attend the 3,500 B.S.I. Committee meetings held during the course of each year.

APPOINTMENT

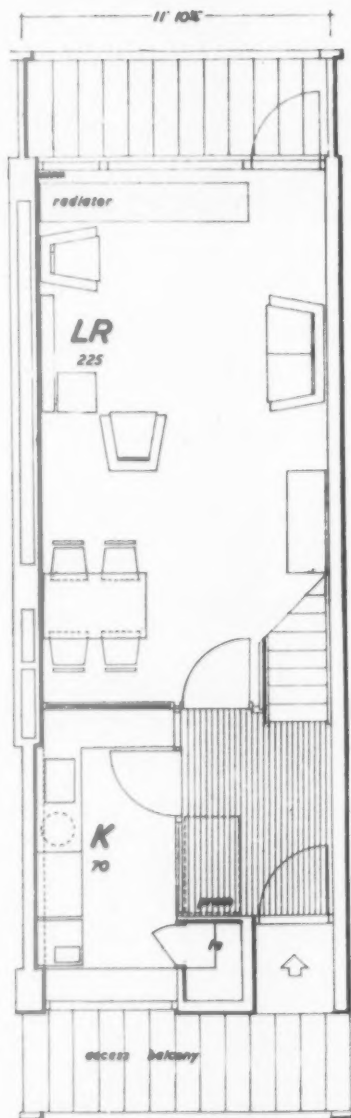
Sir Patrick Abercrombie is to act as consultant to the Snowdonia Park Advisory Committee. His fee for the first year will be 500 guineas plus expenses. It is understood that he will advise the committee on matters arising out of the development plans of Merioneth, Caernarvon and Denbighshire.

PETERBOROUGH TECHNICAL COLLEGE

With reference to the article published in last week's issue, the following Consultants were engaged on the job: Heating and Ventilation, Henry J. Knox. Lighting and Electricity, Leslie C. Rettig and R. W. Gregory & Partners.



UPPER FLOOR PLAN



LOWER FLOOR PLAN



STAFF COTTAGES, GOLDERS HILL PARK,

CARRIED OUT UNDER ROBERT H. MATTHEW, C.B.E., A.R.I.B.A., FORMER ARCHITECT

BY THE GENERAL DIVISION: W. J. DURNFORD, F.R.I.B.A., Senior Architect

A. E. MILLER, F.R.I.B.A., Principal Assistant Architect

A. J. BIDDULPH, L.R.I.B.A., Job Architect



THE accommodation provided is a pair of staff lodges (one for the Park Superintendent and one for an assistant Superintendent) to replace living quarters lost as a result of enemy action. A new site was chosen where an addition to the park with a new park entrance is being formed.

Construction

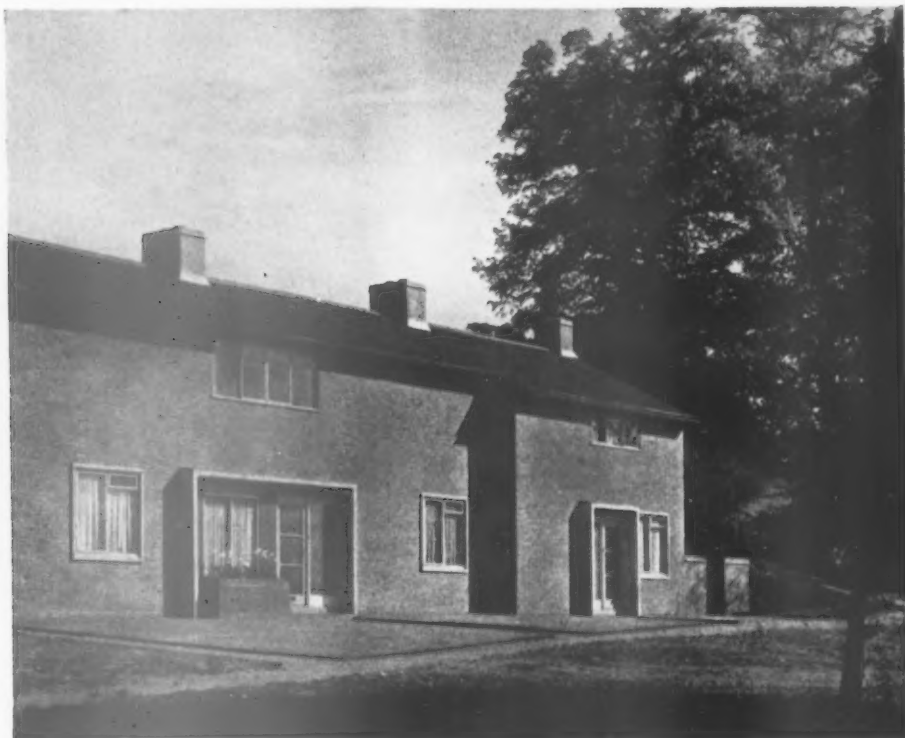
Walls: 11in cavity brick with Dunbrik facings.

Roof: Low pitched timber with trussed rafters covered with Langley's Interlocking tiles.

Floors: Ground screeded for lino. on concrete. First boarded on joists.

Windows: Wood of E.J.M.A. sections.

A Marathon Convector fire is provided in the living room of each lodge which gives warm air to the Parlour and one bedroom in one case and the dining room and one bedroom in the other. Hot water is provided from a boiler in the Utility room.

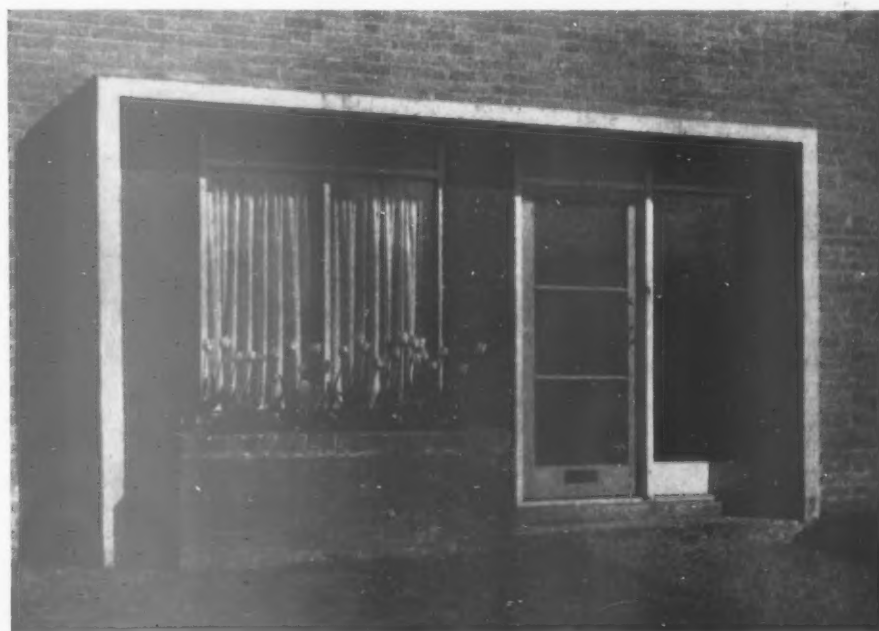


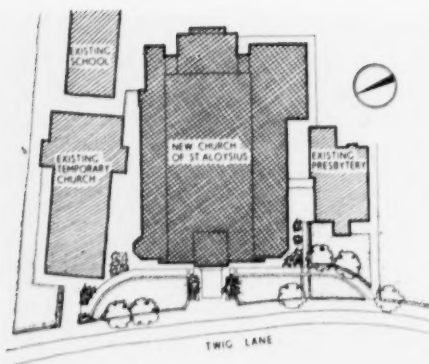
HAMPSTEAD

TO THE L.C.C.

CONTRACTOR: AND MAIN SUB-CONTRACTORS

Facing bricks (concrete): Dunbrik Ltd. Artificial Stone: Liverpool Artificial Stone Co. Ltd. Roofing Tiles: Langley, London, Ltd. Ironmongery: John Knowles & Co. Ltd. Paints: Manning Stevens Ltd. Electric Lighting: A. Tindall & Sons. Hot and cold water: R. A. Brinkworth Ltd. (Sewer connections by D. R. Patterson Ltd. (Parliament Hill) and O. C. Summers Ltd. (Golders Hill).) Gas Mains: North Thames Gas Board. Tile fireplaces and surrounds and convector fire: Page Calnan & Co. Ltd. Glazing: Faulkner Greene & Co. Ltd. Plastering: D. J. Jones & Sons (Plasters) Ltd., and T. F. Rooney & Sons Ltd. Main Contractor: Callow and Wright Ltd.





ST. ALOYSIUS CHURCH HUYTON, LIVERPOOL

ARCHITECTS:
SAXON SMITH & PARTNERS
F.R.I.B.A.



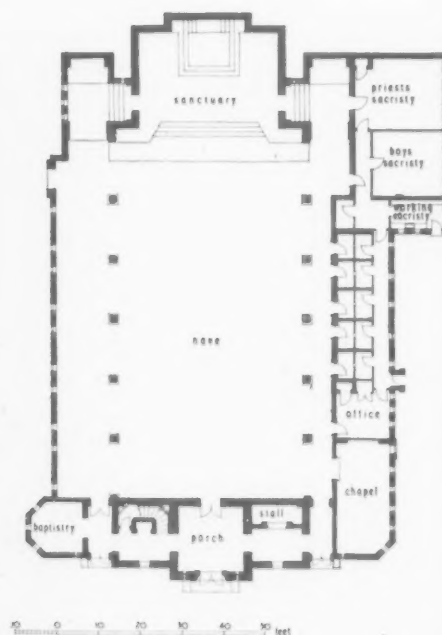
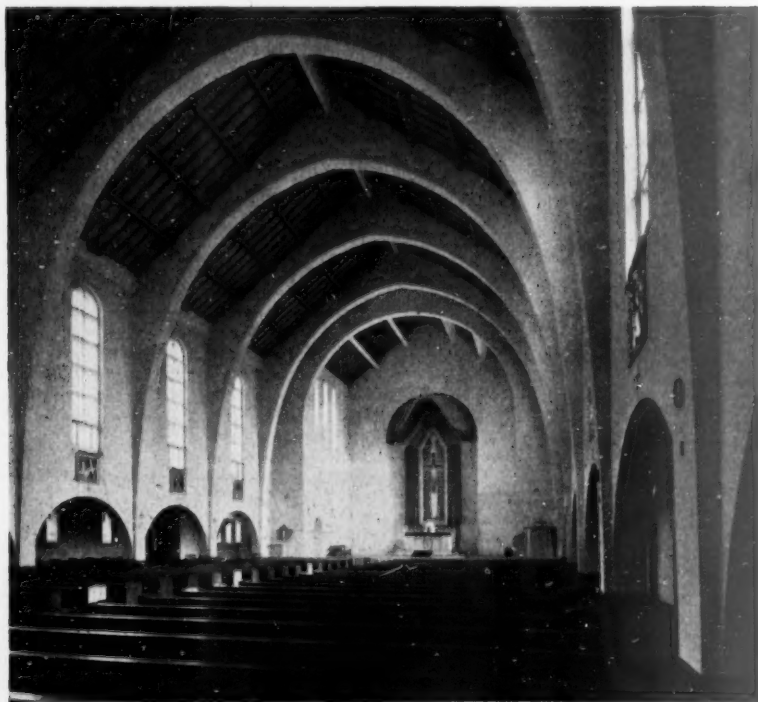
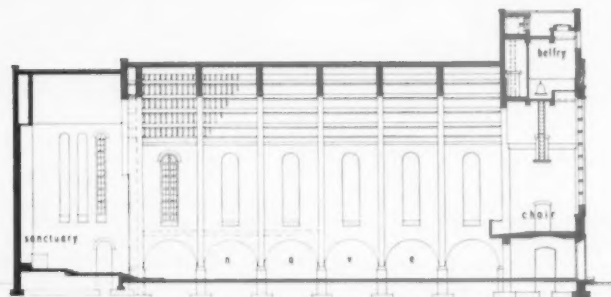
Planning

The site was restricted in depth by the Infants' School and this together with the desire that as many as possible should have a clear view of the altar governed the plan form.

The church seats approximately 800 with an additional 40 in the choir where provision has been made for installation of an organ in future.

An unusual feature is the inclusion of an office for parochial business.

The church serves a parish of nearly 9,000 and replaces the temporary church which was built several years prior to the war.



The foundation stone was laid in September, 1949, and the church was opened in 1952.

Construction and Finishes

The Nave is framed with R.C. arches spanning the Nave with an open roof.

The Tower, Sanctuary and Office are of traditional brick construction with R.C. roofs.

All roofs have been insulated underneath with wood wool and flat roofs have additional insulation of fibre board laid under asphalt which is surfaced with white spar for solar reflection.

All fittings including the marble altars, Sanctuary paving, Communion rail and gates, Pulpit, Sanctuary lamps, Tabernacle, candlesticks, Reredos, Baldechino, Font, piscinas and offertory boxes have been designed by the Architects.

The Sanctuary paving is of ceramic mosaic with marble medallions inlaid representing the Apostles. The steps are of Botticino which has been largely used for the remainder of the marble work relieved by more decorative marbles.

The Crucifix, Reredos and Baldechino are of wood decorated and gilded.

The Sanctuary ceiling is decorated on fibre Board and the open roof of the Nave is painted blue with grey rafters.

The pews are of African Idigbo with ends of figured oak and are wax polished.

Idigbo has been extensively used for doors and joinery but the external doors are all of oak.

The paving in the Nave and Offices is "Granwood."

The walls and arches are plastered in lime and Leighton Buzzard sand left without decoration.

The windows are glazed with obscured glass in pale colours set in lead cames.

The Baptistry gates and the gates at the foot of the choir stair are of wrought iron.

Green Westmorland slate has been used for piscinas, notice boards on the gate piers and for the belfry louvres.



The font is of Portland Stone and so is the figure of St. Aloysius on the Tower.

The bell is 12½ cwt in weight, note "G" flat and has an Angelus chime.

Services

The electric heating is completely concealed and consists of radiant panels under the whole floor area and in the lower part of the walls. Control is by thermostat.

A silent fan is installed in the tower above the belfry for extracting air drawn in through the windows.

An amplifying system is installed and most of the loudspeakers are concealed from view behind the Stations of the Cross.

Lightning conductors are installed on the Tower and over the Sanctuary.

Marble Work—Earley Studios, Dublin.

Sculptured figure of St. Aloysius on Tower—Mr. G. Tyrrell.

Font, Piscinas, slate notice boards—Mr. J. S. McNamara.

Stations of the Cross—Mr. Tyson Smith.

Crucifix—Mr. E. F. Blackwell.

General Contractors : Tysons (Contractors) Ltd.

Aisle Wall Lights : Linolite Ltd.; Asphalt : Penmaenmawr & Trinidad Lake Asphalt Co. Ltd.; Bricks : Blockleys Ltd. (facing), Ravenhead Brick Co. Ltd. (Common); Bell : Gillett & Johnston Ltd.; Clock : Smiths English Clocks Ltd.; Concrete Reinforcement : Ferrocon Engineering Co. Ltd.; Domed Roof Lights : Williams & Watson Ltd.; Electrical Installation : E.S.I. Ltd.; Extract Fan : Woods of Colchester Ltd.; Flooring : Granwood Flooring Co. Ltd.; Heating Panels and Controls : Panelec (Gt. Britain) Ltd.; Ironmongery : Quiggin Bros. Ltd.; Lead Lights : L. Keizer & Co. Ltd.; Lightning Conductor Equipment : W. J. Furze & Co. Ltd.; Nave Light Fittings : Edison-Swan Electric Co. Ltd.; Plaster : Pollock Bros. (London) Ltd.; Plumbing and Painting : James Stott & Son Ltd.; Pulpit Light : C. M. Churchouse Ltd.; Roof Tiles : Colthurst & Symons Ltd.; Sanctuary Lights and Water Heater : General Electric Co. Ltd.; Slate Louvres : Broughton Moor Green Slate Quarries Ltd.; Sound Equipment : Dictograph Telephones Ltd.; Switch & Fusegear : Cantle Switches Ltd.; Wrought Iron Gates and Grilles : W. H. Lunt & Co.

The Planning of Neighbourhood Centres

By JOHN L. BERBIERS, A.R.I.B.A., A.M.T.P.I.

THE planning of neighbourhood centres, with shops and other public and communal buildings, is by no means the least important function of the architect in planning. The conception of a neighbourhood centre as a three-dimensional composition is essential, as indeed it must be in any project where the siting and inter-relationship of individual buildings are concerned.

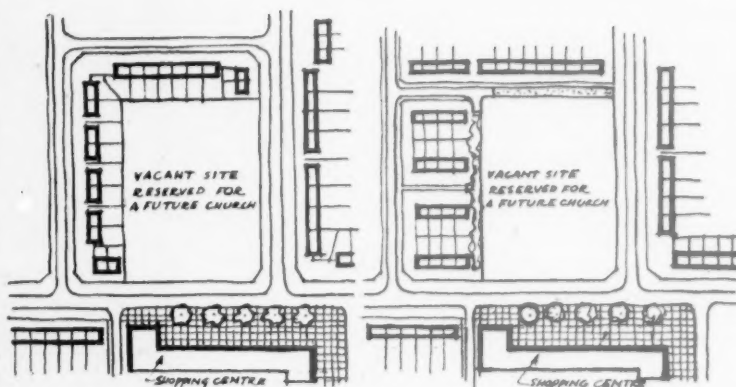
A successful grouping of buildings which vary in size, proportion and function and, for example, from a single-storey branch library to a shopping centre with two or more floors of offices or dwellings above, gives rise to a number of considerations.

In a layout consisting only of flats and houses, the elements of composition—the units which the designer has at his disposal—have a certain similarity in size, shape and character; and there are standards which determine the spacing of dwellings and their number per acre. In residential development, therefore, these factors ensure at least a degree of unity. From a visual aspect, they help as it were to compensate for, and make less apparent, deficiencies in planning. Moreover, in the majority of housing layouts there is less need for flexibility in planning—for anticipating future revisions and adjustments—than in a layout of public and communal buildings.

An important point in the planning of neighbourhood centres is that of staging, or the probable order in which the various buildings are likely to be erected. In some cases there will be a delay of many years before all the sites are developed, and during this period, a change of planning policy, or in economic conditions, might necessitate a reduction or reorganization of neighbourhood provisions. Consequently it is usually difficult in the initial stages of planning to forecast with certainty the ultimate use of every site and the building programme for the centre as a whole.

Nevertheless, it is necessary that a broad classification or estimate of building priorities should first be prepared as a basis for design. Clearly the form of layout must be such that the appearance of the centre is not unduly prejudiced during the early stages of development by sites which remain vacant for a long period.

In redevelopment, the order of building priorities should correspond as far as possible to the order in which clearance will take place. Ultimate requirements—many of which will appear to be more theoretical than probable at the time when the centre is

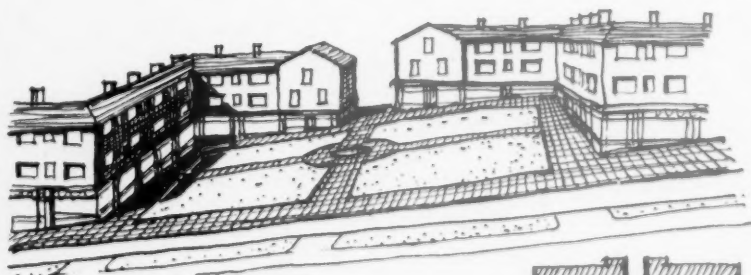


A VACANT SITE IN A NEIGHBOURHOOD CENTRE. ON THE LEFT, THE UNSCREENED BACKS OF DWELLINGS WILL MAR THE APPEARANCE OF THE CENTRE UNTIL THE CHURCH IS BUILT. THE LAYOUT ON THE RIGHT LARGELY OVERCOMES THIS FAULT. HERE, GABLES AND THE FRONT ELEVATION OF DWELLINGS FACE THE SITE.

initially planned—should be located on land not likely to be available for many years. The occasion may arise when a site available for early redevelopment is considered (in relation to the ultimate redevelopment of the neighbourhood) to be a suitable position for a shopping centre. At the present time there may be no demand for new or additional shops in the vicinity, and the land must consequently be used for housing. This might well be a case for designing a group of flats with ground floor dwellings which are capable of being converted, when required, into shops. This arrangement is frequently adopted abroad, even in new development.

Another planning consideration is the actual relationship of building masses *inter se*—the three-dimensional

grouping of units which differ, one from another, both in size and architectural character. It is necessary, in particular, to consider the effect of variation in the height, plan-form and location of individual units upon the composition of the centre; and in this respect, the silhouette of buildings as seen together, both in elevation and perspective, is an important factor. Interest and variety should result primarily from a simple, well-defined contrast of shapes, which can be achieved only by careful siting and arrangement of the different buildings. It need hardly be emphasized that the siting and design of neighbourhood centres should be directly influenced by the configuration of the land. And yet how often do we find schemes,



A DRAWING-BOARD PATTERN APPLIED TO A SLOPING SITE. A FORMAL LAYOUT IMPOSES UNNECESSARY LIMITATIONS UPON THREE DIMENSIONAL DESIGN—PARTICULARLY IN A CASE LIKE THIS OF A SHOPPING SQUARE ON HILLY GROUND

existing or proposed, which are ill adapted to their sites?

A group of shops is often one of the most dominant elements in a centre consisting of public and other buildings, and consequently its visual form has an important bearing on the appearance of the area as a whole.

In general, the layout of shopping centres (as distinct from the remainder of neighbourhood centres) may be grouped into one of three principal kinds. First, there is the square or place with shops on two or more sides. Secondly, the double-sided shopping street designed either as a pedestrian precinct or with provision for vehicular traffic, and thirdly, the roadside centre consisting of a single row of shops facing a thoroughfare. In addition, there is the kind which combines, for instance, the idea of the square with that of the street.

Simplicity of form and good proportion are, of course, essential, although judging from a number of recent examples, the need for these qualities is sometimes overlooked.

A shopping centre should provide a background and environment which is appropriate to its function. A feeling of compactness and enclosure is desirable, and its form must be related, horizontally and vertically, to the human element. In this respect, there is much to commend the layout or build-up of the older market towns with their narrow streets and enclosed places.

There is a danger of over stressing the "civic" character in new shopping centres. The architecture tends to become monumental, and the layout unnecessarily formal and hampered by symmetry. A problem which often arises is that of allowing for the possible future extension of a shopping centre. If it is not known with certainty that additional shops will be required, the centre should be planned as two distinct units, providing respectively for the immediate requirements and those which may arise later.

The architectural treatment of a shopping façade should allow for variety in the design of individual shop fronts, and provision should be made in planning for the display of advertisements and the placing of seats, shelters, telephone kiosks and other equipment. Every effort should in fact be made to create an atmosphere of bustle and movement.

The landscaping of a neighbourhood centre calls for special consideration. It is not the quantity of greenery that matters, but rather the way in which it is set out in relation to the surrounding buildings. A large mass of foliage, for example, might be employed as a connecting link or background between buildings, or as a foil and relief to the precision of the architecture, and the use of trees or shrubs will provide a transition between the verticality of a building and the horizontal lines of the ground. Whatever the reasons may be for the

planting of trees and other kinds of greenery, their selection and siting should be such as to contribute to the success of the visual composition.

There is a reluctance in the planning of squares and pedestrian precincts to accept unbroken paved areas, with perhaps a few well-placed groups of trees or shrubs. In spite of the problem of maintenance, there is still a preference for ornamental gardens and flower beds which only

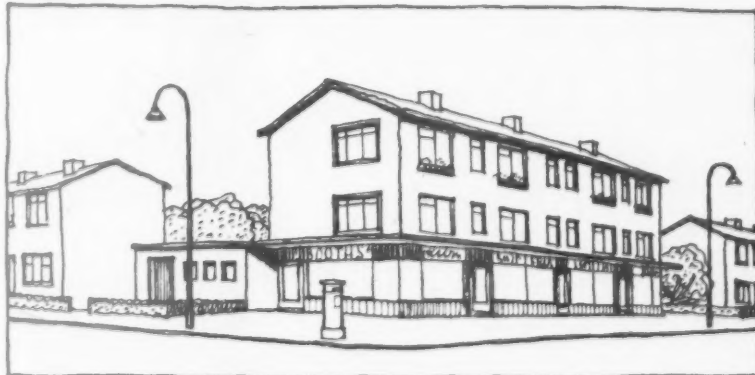
too often have to be enclosed by low brick walls or fences. This is to be regretted, both from practical and æsthetic viewpoints. Not only do such "amenity features" tend to cause obstruction to shoppers, but they also destroy the unity and breadth of a composition.

Obviously, this subject—the planning of neighbourhood centres—is one which offers considerable scope for further investigation.



THE SILHOUETTE OF BUILDINGS AS SEEN IN RELATION TO ONE ANOTHER IS AN IMPORTANT FACTOR. THIS ARRANGEMENT OF A SINGLE-STOREY LIBRARY, PUBLIC HOUSE AND SHOPPING CENTRE CREATES AN IMAGINARY LINE WHICH HAS NO SIGNIFICANCE IN THE COMPOSITION AND MERELY DETRACTS FROM THE APPEARANCE OF THE GROUP.

A NEIGHBOURHOOD CENTRE, OR, EVEN A SMALL SHOPPING CENTRE, LIKE THE ONE SHOWN HERE, PROVIDES OPPORTUNITY BOTH IN ARCHITECTURE & LAYOUT FOR INTRODUCING VARIETY & INTEREST TO A RESIDENTIAL AREA. MUCH DEPENDS, HOWEVER, UPON THE SITING OF THE CENTRE. THE GROUP OF SHOPS ON THE RIGHT SEEMS TO HAVE CREPT ALMOST ACCIDENTALLY INTO LINE WITH ADJOINING HOUSES & THE ARRANGEMENT OFFERS LITTLE SCOPE FOR THREE-DIMENSIONAL COMPOSITION. THE CORNER SITE SHOWN BELOW GIVES GREATER OPPORTUNITIES FOR AN INTERESTING DESIGN & LAYOUT.



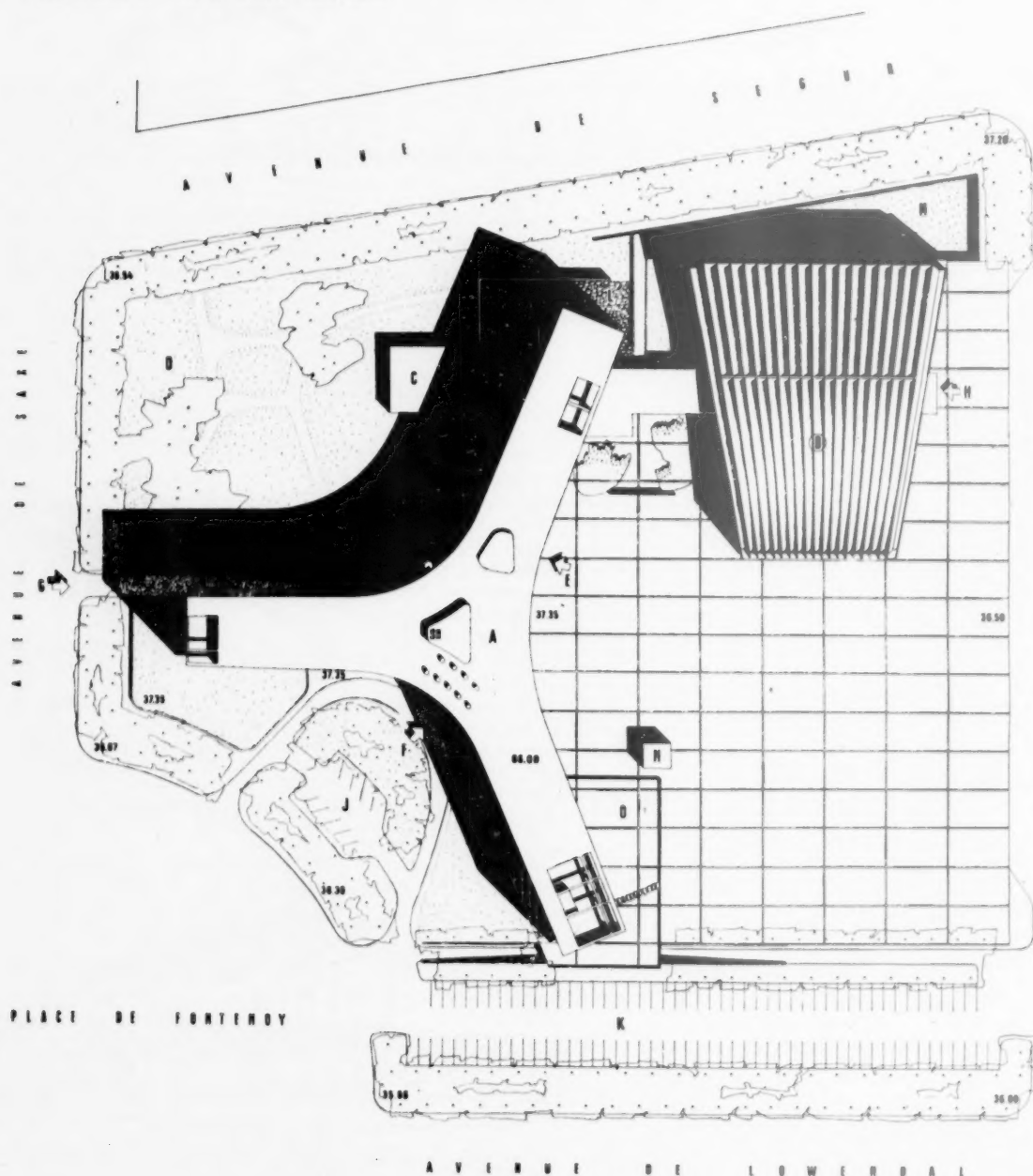
UNESCO HEADQUARTERS BUILDING

Place de Fontenoy, Paris

ARCHITECTS: MARCEL BREUER, AND BERNARD ZEHRFUSS
ENGINEER: PIER LUIGI NERVI

At the 2nd Extraordinary Session of the General Conference of United Nation's Educational, Scientific and Cultural Organization held on July 4, the project of Breuer, Zehruss and Nervi for an H.Q. Building in Paris was approved, and the new building will be commenced next January. The present site on the Place de Fontenoy was offered originally by the French Government and a design was prepared by M. Eugene Beaudouin which was turned down. The next site proposed for the H.Q. was between the Porte Dauphine and the Porte Maillot bordering the Bois de Boulogne*, for which the present firm of architects and engineer designed a scheme reminiscent of the UNO building in Manhattan. This scheme in turn was rejected, and the present solution for the original site appears to have borrowed to some extent from M. Beaudouin's curved high block, but the disposition on the site is much freer.

* Illustrated in "A. & B.N.," 23.10.52.





THE site is bounded by the Avenues de Saxe, de Suffren, de Lowendal, and by the Place de Fontenoy. This is a district with excellent transport facilities, served by various bus and metro lines. The ground is approximately level and measures about 370 feet on the Place de Fontenoy (N) and 280, 650, 670 and 400 feet on the Avenues de Saxe, de Ségur, de Suffren and de Lowendal, respectively.

The plan for the Secretariat Buildings is Y-shaped, with curved façades at the juncture of the three wings.

The site is bounded by streets 130 feet wide, of which only the Avenue de Lowendal carries heavy traffic. For the present the additional traffic load of the new Unesco Headquarters will create no congestion problems. Later, should the large parking areas provided on the site prove inadequate, the wide sidewalks may provide additional parking facilities.

The height of the buildings to be constructed is not to exceed the height of the existing buildings on the Place de Fontenoy and the radial avenues.

BUILDING PROGRAMME AND FUNCTIONS

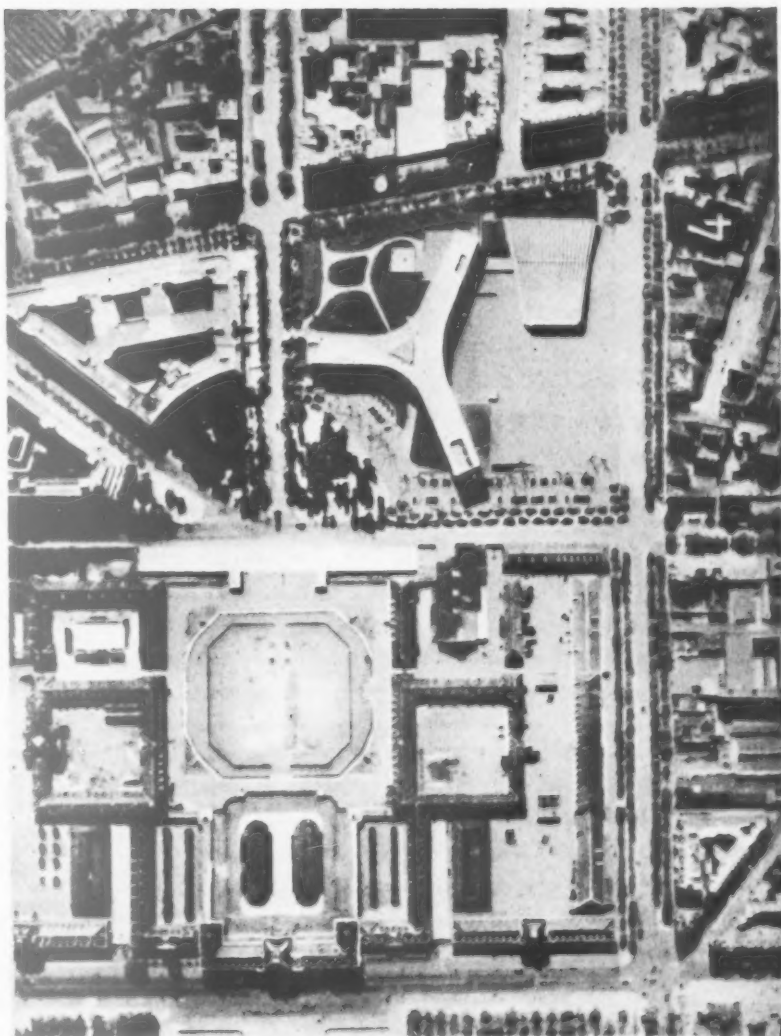
The strict budgetary limitations on building and operation costs have been met by the following arrangements:

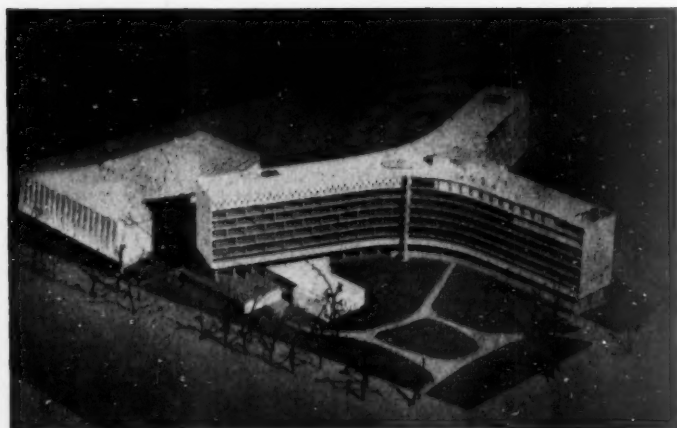
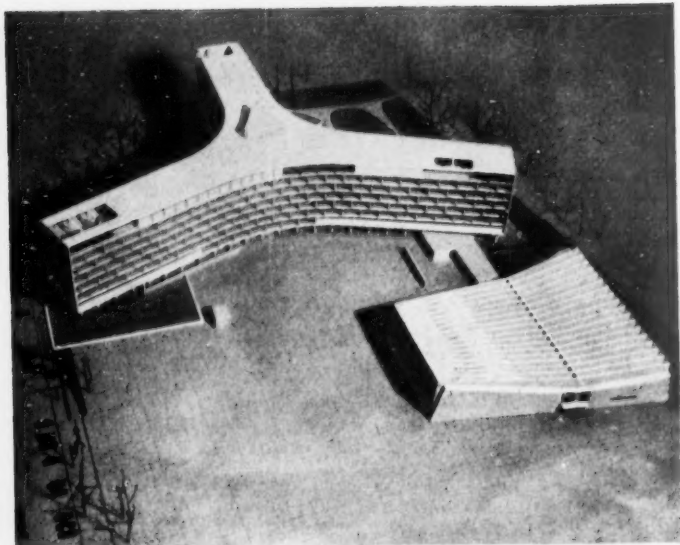
(a) Space for offices has been reduced as compared with the programme of the first project. The available space has, however, great flexibility and can be easily rearranged; should expansion be required in the future a new building may be constructed in the areas between the Avenues de Saxe and de Ségur.

(b) The functions of the Plenary Hall have been limited to Unesco's actual needs, with somewhat reduced facilities for dramatic performances. Multiple uses for the commission and other meeting rooms have been developed, thus enabling the number of these rooms to be reduced.

(c) Only small reductions have been made in respect of the general services, so that in case of later expansion they would be of adequate size.

(d) It was generally felt and requested

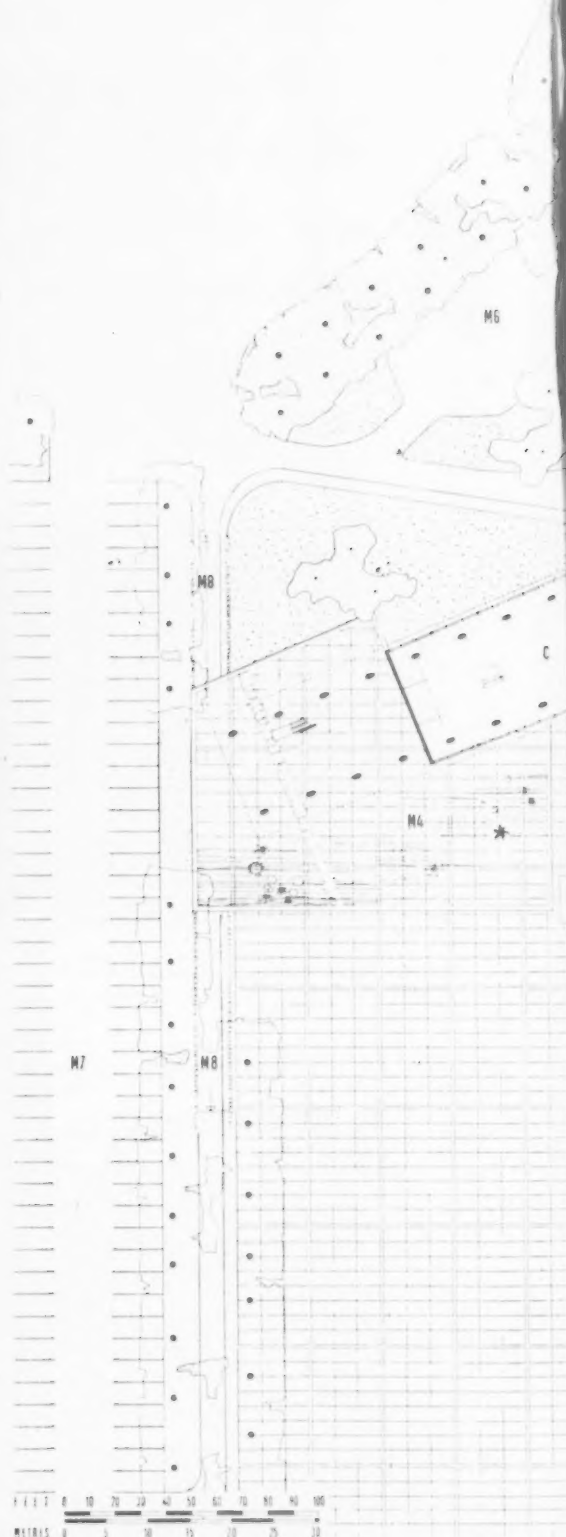


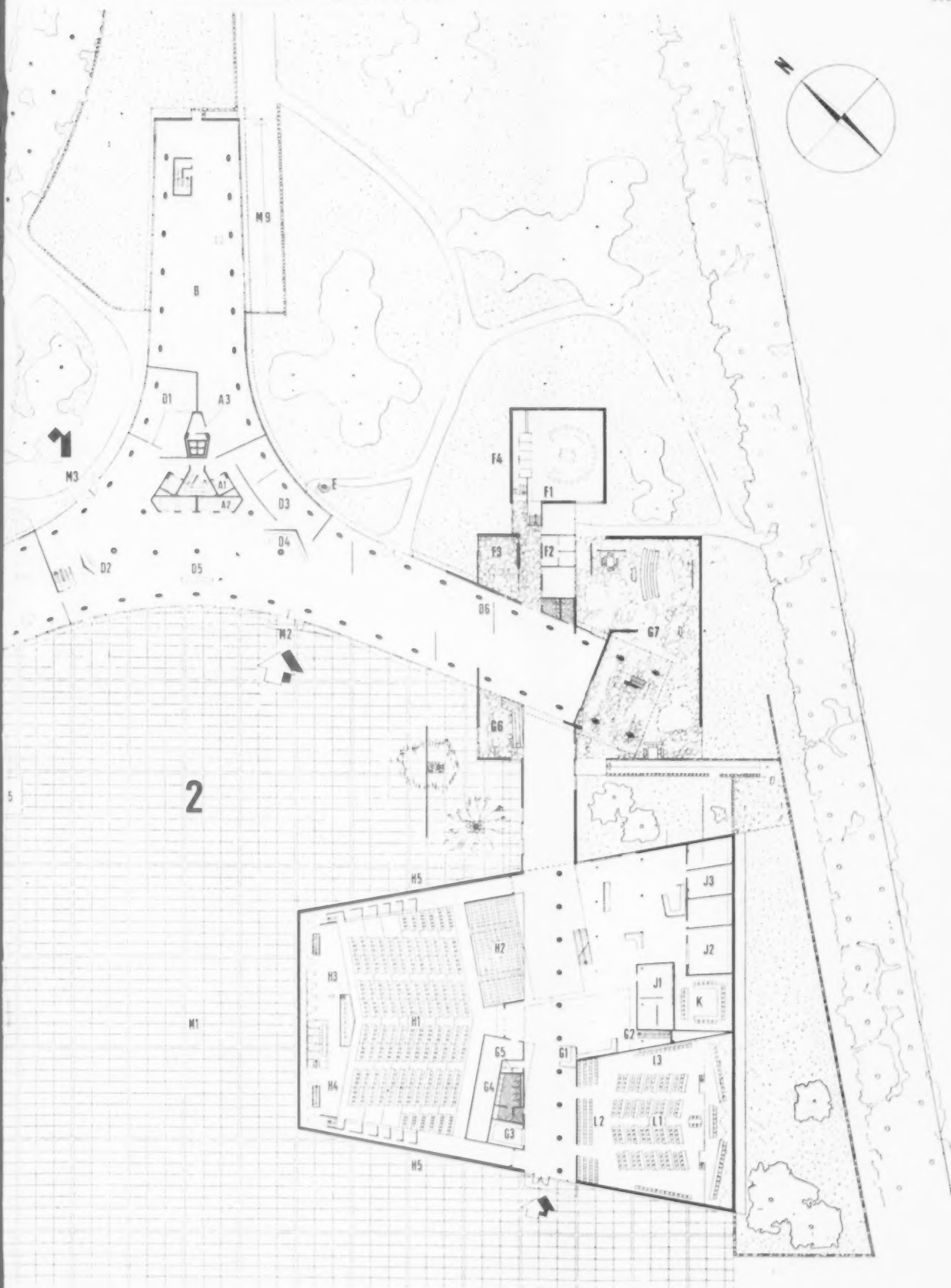


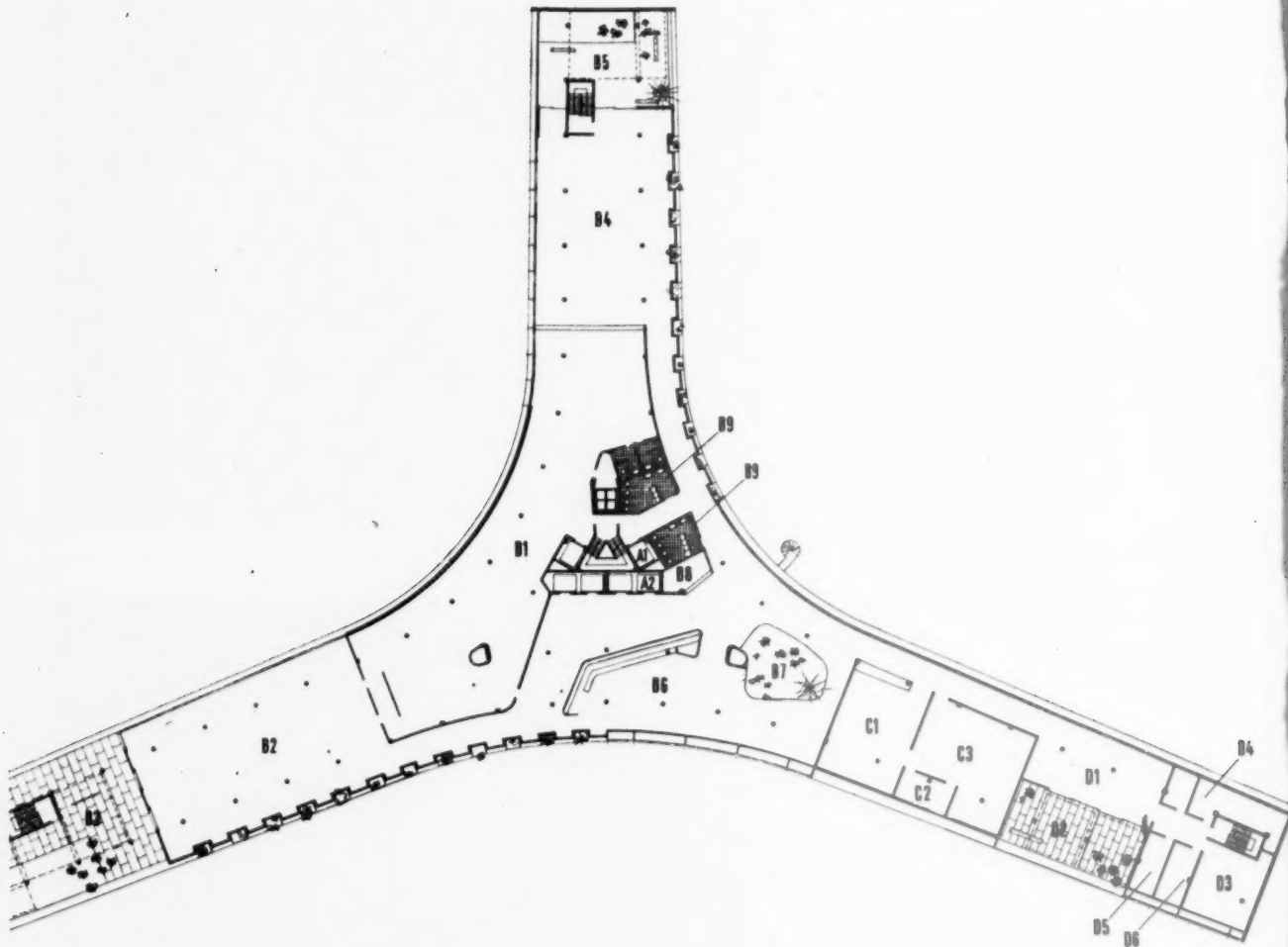
TWO VIEWS OF MODEL

KEY TO GROUND FLOOR PLAN

A. Service Core. A1. Freight Elevators. A2. Passenger Elevators. A3. Mechanical sub-station, vertical service lines, Chimney. B. Workshops. C. Library. D. Main Lobby. D1. Bank. D2. Telegrams. D3. Book Shop. D4. News Stand. D5. Information. D6. Exhibits. E. Stair reserved for firemen. F. Executive Board. F1. Meeting Room. F2. Offices. F3. Salon. G. Delegates' Lounge. G1. Semi-private Lounges. G2. To Conference Secretariat. G3. Cloakrooms. G4. Storage. G5. Telephones. G6. Delegates' Bar. G7. Patio. H. Plenary Session Hall. H1. Delegates. H2. Public and Press. H3. Transcription Pit. H4. Stage. H5. Simultaneous interpretation, Television. J1. Delegates' Reception. J2. Document Distribution. J3. Executive Offices. K. Small Committee Room. L. Commission Room. L1. Delegates. L2. Public and Press. L3. Observers. M. Outdoor Arrangements. M1. Piazza. M2. Entrance. M3. Car approach. M4. Shallow Pool. M5. Sculpture. M6. Visitors' Parking. M7. Parking. M8. Garage Ramps. M9. Service Ramp.







SECRETARIAT: SEVENTH FLOOR PLAN

A. Service Core. A1. Freight Elevators. A2. Passenger Elevators.
 B. Restaurants. B1. Kitchen. B2. Restaurant. B3. Roof Terrace.
 B4. Cafeteria. B5. Roof Terrace. B6. Bar. B7. Garden. B8. Cloakroom.
 B9. Lavatories. C. Staff Co-operative. C1. Sales Room. C2. Office.
 C3. Storage. D. Staff Association. D1. Recreation Room. D2. Terrace.
 D3. Library. D4. Offices. D5. Housing Agency. D6. Credit Union.

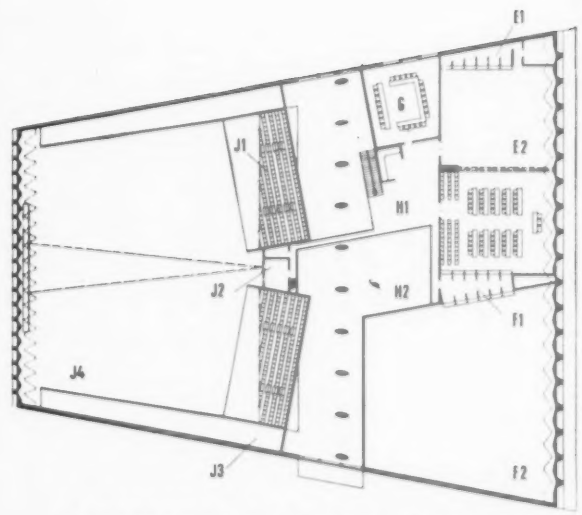
that all working spaces should have natural light and ventilation and that the auxiliary spaces of the various departments should have the most direct connection possible with the departmental offices. This meant, in terms of planning, a concentrated grouping of the various departments with the shortest and least wasteful communications. This aim has been achieved by dividing the required space into only two main buildings; the Secretariat and the Conference Building.

The Secretariat

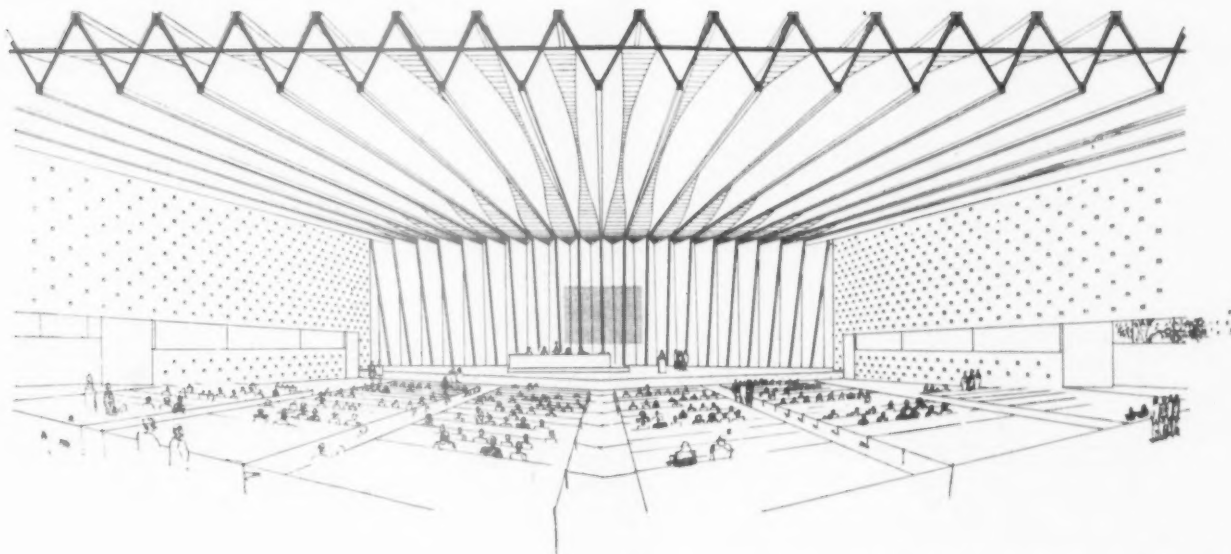
The volume of space required, the eight-storey height limitation and the need for concentration have necessitated a vertical circulation core, and a horizontal development of the wings. The Y-shaped design adopted avoids excessive length of corridors and makes for privacy and an unobstructed view from the windows. With, in addition, its curved façades at the juncture of the wings, this building form achieves four important aims:

(a) It creates interior space for a well-organized vertical core at the centre, containing all circulation and service facilities (four passenger and two freight elevators, stairs, chimneys, ventilation and heating ducts, waterlines, lavatories and central halls).

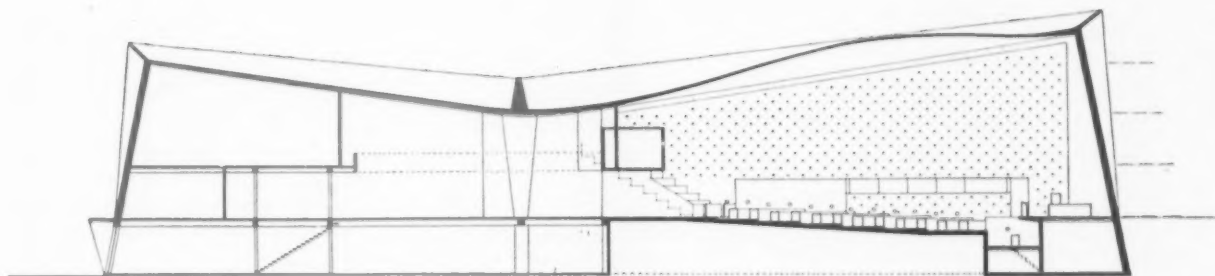
(b) It places all office and working spaces along the outside enclosures of the building, with the advantage of natural ventilation and light.



CONFERENCE BUILDING: FIRST FLOOR



INTERIOR OF PLENARY SESSION HALL



CONFERENCE BUILDING: LONGITUDINAL SECTION

(c) It completes the whole composition of the Place de Fontenoy and the Ecole Militaire and at the same time creates the background for the new Piazza towards west.

(d) It leaves the maximum outdoor space between Unesco and the neighbouring buildings.

The Conference Building

All conference facilities are under one wide roof structure and surround the Delegates Lounge, which can be approached through a connecting hall from the main lobby of the Secretariat or directly from Avenue de Suffren. The building which has three levels, houses, on the ground floor, the Plenary Hall, the Commission room, one small Committee room, and some offices of the Conference Secretariat (reception, etc.), the greater portion of the Delegates Lounge, the cloakrooms and lavatories. A central stair leads to the upper level of the Lounge, the two large Committee rooms, a small Committee room and the projection booth of the Plenary Hall. Two stairs lead to the lower level, to the offices of the Conference Secretariat, two small Committee rooms, the Press and Radio divisions and the underground passage to the below-stage facilities of the Plenary Hall. Along the south-east side of the Conference Building the garden level is lowered, allowing natural light and ventilation for most of the offices of the Conference Secretariat.

The Hall from the Conference Building to the Main Lobby leads also to the Executive Board Room and its offices, and opens to a partly covered, partly walled-in outdoor space: The Conference Patio and a Bar.

STRUCTURE

The Secretariat

The supports are designed for maximum flexibility of office planning and for minimum loss of usable space. They are placed 20 feet apart throughout the building, always 10 feet behind

the façades. The cross spacing of the supports is chosen so that the positive bending moment in the centre of the span is nearly equal with the negative moment over the support. In other words, the cantilevered portion of the structure is favourably balanced with the structure between the uprights. This arrangement, in combination with the undulating slab which collaborates statically with the beams, results in minimum floor construction thickness.

The undulation of the slab forms the ceiling of the offices, except in the corridors, where a suspended ceiling conceals all mechanical conduits. The centre part of the building is supported by the structural enclosure of the vertical core. In the basements, for reasons of structural economy, a centre row of supports has been added.

The columns of the ground floor are rectangular at the top and elliptic at the bottom. Their surface is a combination form with only straight line components. In consideration of the horizontal dimensions of the building, three expansion joints are provided.

The Conference Building

Here, the solution of the structural problems involved gives the building a distinct architectural character. The corrugated reinforced concrete structure is continuous in roof and end walls. The roof rests on these two end structures and on a row of columns placed 135 feet from the north-west and 90 feet from the south-east supports. The side walls are non-supporting. The corrugated structure of the roof is braced and statically completed by a slab of varying thickness. According to the stresses along the structure, the slab is at the bottom over the central supports and rises to the top to give the necessary resistance to the positive bending moment. By the very form of the structure great efficiency is obtained with minimum material and weight.



This structure may be executed in pre-stressed concrete. Most of the building has natural ventilation, chiefly by means of sliding windows, adequate natural lighting and radiant heating.

MATERIALS AND COST

It is proposed to use stone mosaic of a light texture and colour for the exterior wall finishes, rubble stone masonry for retaining walls and bush hammered concrete with special aggregates for the exposed part of the structure.

Sliding windows and glass walls are to be of clear plate glass. Exterior sun filters on the south-east and south-west façades of the Secretariat will be of heat-absorbing glass.

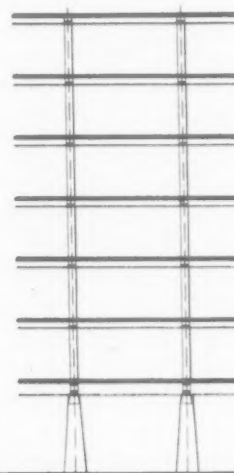
The aluminium windows are to be of anodized silver, the railings black. The Piazza is to be paved with stone and the drives are concrete. The roof of the Conference Building will be oxidized green copper.

The parking areas are to be planted with sycamore trees.

The garden areas on both sides of the Place de Fontenoy Entrance, in the east section and the dropped level south-east corner of the site, will have a parkline treatment with lawns, large trees and bushes. The Delegates Patio and the roof gardens are to have a flag-stone paving with some interspersed planting.

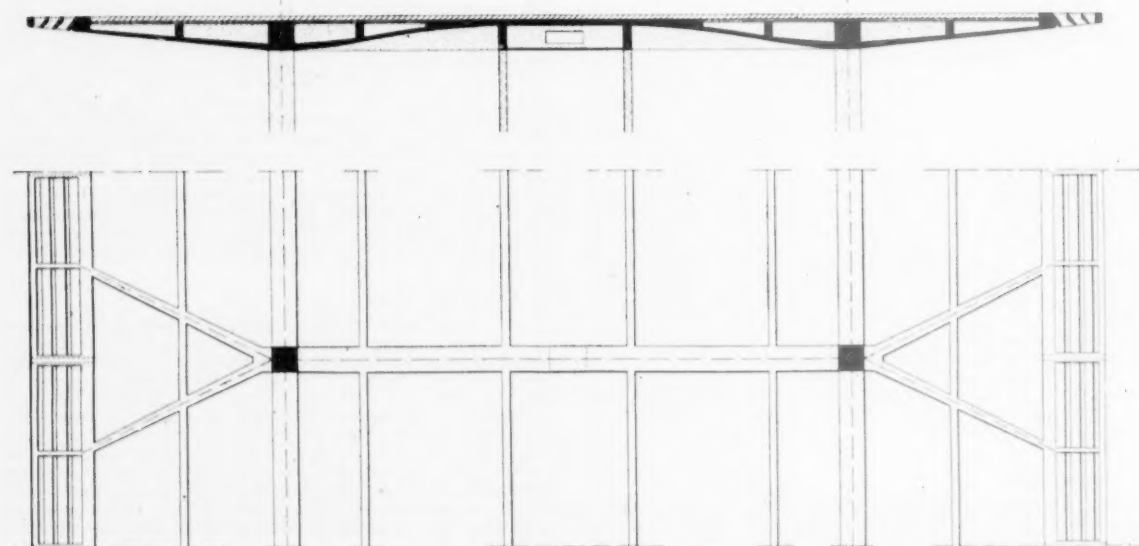
The estimated cost in francs is 1,992,900,000.

SECRETARIAT: CROSS SECTION



LONGITUDINAL SECTION

DETAILS OF STRUCTURAL FLOOR SYSTEM



LIBRARY NOTES

English Architecture Since the Regency

An Interpretation by H. S. Goodhart-Rendel. Constable & Co. 25s.

"ENGLISH Architecture Since the Regency" is based on a series of lectures delivered by Mr. Goodhart-Rendel at Oxford in 1934, and any reader who has heard the author speak will certainly hear the echo of his voice as his eye travels across the page. Criticism is disarmed by Mr. Goodhart-Rendel's explanation that this is not his last word on the Architecture of the past century, the lectures are published by way of an interim report, the History is still to come and it will be awaited with interest.

I have enjoyed every page of this book and agree with the author's interpretation in the ratio of two pages out of three. The pages I did not agree with were infuriating, but that helped to make the book worth reading. Mr. Goodhart-Rendel has a fund of inside information to support his conclusions, but by no means all of it is included in his book—presumably the evidence will appear in full in the more elaborate work now in preparation. Meanwhile the reader who wants to argue must collect his own information and that means not only visits to the Libraries of the V. & A. and the R.I.B.A., but visits to buildings scattered over the length and breadth of Britain.

Mr. Goodhart-Rendel has written down several reputations that have been built up in recent years as pioneers of modern architecture, and he has come to the support of some able Victorians whose stock at present stands low. One great man whose defence he undertakes is Alfred Waterhouse, and it is indeed surprising that, with so many writers searching for evidence of British influence on Continental architecture, Waterhouse has been neglected. Hardly anyone has been able to overlook the unsympathetic materials he habitually used and to appreciate his masterly planning and enterprise in construction. But it was Waterhouse who, at University College Hospital, introduced the well-lighted cruciform tower in place of the traditional façade and light-well plan for a city block. And, as a Dutch friend pointed out to me, it was the brick and terracotta and exposed metal structure of the Natural History Museum that led up to Berlage's Bourse at Amsterdam. The early and intermediate sketches for the Bourse make the link very clear, and in several less famous buildings by Berlage there is a distinct flavour of Waterhouse both in mass and in detail.

George Devey is also given a well-deserved mention for his work in the early days of the English Domestic

Revival. Anyone who has seen one of his country houses will agree that he deserves to be better known. He preceded Shaw, Nesfield and Webb in his departure from strict Gothic towards a new vernacular and C. F. A. Voysey considered himself fortunate to have obtained a job under Devey after completing his pupilage.

Street is given a square deal at last, and the blame for any defects in the planning of the Law Courts is placed—where it certainly belongs—on the shoulders of the authorities who laid down the conditions and later interfered with every stage of the architect's work. It is good to see this counterblast to the sneers that have been repeated by one critic after another. It would be interesting to know the origin of the legend that Street allowed Webb to design parts of the Carey Street Elevation of the Courts. Webb had left Street long before the competition took place and throughout the period of construction of the building he was fully occupied with work of his own and designs for the Morris firm. A search of his account book does not show any payment received from Street at this time although it includes sums received for a number of odd jobs as well as the fees for important commissions. If Webb did in fact assist Street his work must have been voluntary and very limited.

The early buildings of Webb owe a great deal to Street and are nothing like so revolutionary as has sometimes been suggested. As Mr. Goodhart-Rendel points out, Red House could easily be mistaken for one of Street's Parsonages. Webb was first and foremost a designer of houses, but it is not strictly true to say that he designed no other buildings except for one church. He designed several churches and chapels, though only one of importance was built. He designed the offices of Bell Brothers at Middlesbrough and even more interesting is the fact that he was employed by Bell as consultant for industrial buildings including a large Workshop, Boiler-house and Water-tower at Port Clarence, he also designed the Engine-house for a colliery at Atherstone. I would not on the strength of this evidence claim that Webb was greater than Butterfield, but he was great in his quiet way and his work is more varied than is usually believed. I once had the experience of visiting, on the same day, houses by Webb, Shaw and Lutyens and the quality of Webb's work made the designs of the other two look like Woolworth jewellery.

Of the Neo-Classical architecture derived from Norman Shaw's later work, Mr. Goodhart-Rendel says, truly, that if building of this kind seldom rises to being great architecture it has the merit of being in a measure fool-proof. If a house so built is not very often worth looking at, it is almost always easy to overlook. These are

wise words. Voysey described the Classical method of design as a crutch for fools and optimistically advised his fellow architects to throw away their crutches and design from first principles, but when the fools tried to follow his precepts they fell flat on their faces for lack of crutches.

"Functionalism," says Mr. Goodhart-Rendel, "was first preached in England by Professor W. R. Lethaby many years ago, but it enjoyed no vogue until it was restated recently by M. Le Corbusier and by him put into practice." Lethaby and Voysey and Gropius and Le Corbusier have produced unexpected and disappointing results because, while able designers themselves, they failed to realize how few of their followers would have the mental capacity to produce anything at all from first principles. The results of Functionalism so far have amounted to little more than the addition of one more style to the architectural stock—*Ye olde Moderne Style* as the disillusioned Lethaby called it.

Although the results of their teaching have been far from satisfactory it seems to me that Mr. Goodhart-Rendel does less than justice to the work actually carried out by Lethaby and Webb. A reference to "Lethaby's own strange buildings" seems a case of pot calling kettle black from the designer of Hay's Wharf to the designer of the Eagle Insurance building—and my own experience of Lethaby's buildings leads me to think that Mr. Goodhart-Rendel is quite unjustified in saying that if Lethaby designed for convenience it was the convenience of the builder rather than that of the occupier. The planning of Lethaby's houses will stand up to any test of convenience, bearing in mind the social standing of his clients and the supply of domestic labour available in the 'nineties. Certainly a Lethaby house was as practical as anything that came from Shaw or Voysey at the same date.

I would also argue against the criticism that the Lethaby School did not accept the new tools and materials peculiar to their age. This may apply to some of Lethaby's followers but it does not apply to the group as a whole. Gimson remained a die-hard handcraft designer but Lethaby himself spent a good deal of effort in trying to persuade his friend to come off it and design for machine production, unfortunately he failed to carry his point. On the other hand, there exists a set of drawings for the Liverpool Cathedral Competition by Lethaby, Schultz-Weir and others of the group which shows clearly that they were prepared to go much further than any of their competitors in the use of contemporary structural methods and freely expressed the concrete structure that they proposed. Not even Mackintosh departed so completely from precedent. The building would have been even stranger than any of

Lethaby's executed work, but it might have made its mark on the architecture of this century.

Mr. Goodhart-Rendel is unlike other critics in that he makes fashions instead of following them. He is interested in quality as much as in species and appreciates a job that is first rate of its kind even if its kind is out of fashion. This is a rare virtue at a time when most people are more impressed by the name of the composer than by the music and books are judged by the publisher's blurbs. The old-fashioned philistine who knew nothing about Art but knew what he liked has been replaced by the smart alack who has been told what a contemporary man should admire and is determined that no one shall catch him liking anything that has not had the blessing of the Press. Mr. Goodhart-Rendel does not mind what anyone else thinks and the result is that sooner or later the others begin to think like Mr. Goodhart-Rendel.

The production of this book is very good, the type is Garamond 12 point on a 13-point body which gives a slight extra space between the lines that makes for comfort in reading, but having done so well with the text it is a pity that the publisher did not do better with the plates. The half-tone blocks are printed on the same paper as the letterpress and in consequence are almost as coarse as newspaper reproductions, a few of the illustrations are tough enough to stand up to this technique but the more delicate drawings are completely ruined; not only are the blocks poor but the type grins through from the other side of the page. Surely the Frontispiece at least might have been spared the indignity of print on the back. Nearly all the plates are taken from elevations or perspectives of the same date as the buildings they portray, an admirable idea and one that avoids the necessity to use the stock photographs that have been served up over and over again by purveyors of architectural light reading. J. B.-J.

Prestressed Concrete

By Yves Guyon. Publishers, the Contractors Record and Municipal Engineering. 560 pp., price 70s.

THIS is an excellent book. Works on prestressed concrete are not lacking; most have fulfilled the necessary task of vulgarization; others have had the less desirable effect of mystification. The time has now come when prestressing has lost much of its novelty and the technical world requires a more serious treatment; the ever increasing use of prestressing has led many architects and engineers beyond the stage where they are impressed with parallels drawn from shelf-loads of books and with simple descriptions of the marvels which have been accomplished. In fact, the moment needs a fundamental examination of prestressing; as such, this book is authoritative and comprehensive.

Guyon has tackled his tasks in logical order; having described what prestressed concrete is, he deals with the properties of his materials and the basic mechanism of their combination. This part of the book is perhaps the most valuable for the serious student; there is a great deal of entirely new matter (such as his treatment of anchorage zone stresses and anchorage by bond) and an admirable summary of data hitherto scattered in periodicals and learned papers, notably a well documented study of fire resistance. He then passes to the design of simply supported beams, with which he deals exhaustively; rare is the designer who will not find stimulating ideas as well as short cuts in this section. He follows with a description and an analysis of a large number of tests to destruction which leads him to a general treatment of the security of prestressed concrete. He concludes with a speculative chapter in which he applies to prestressed concrete that conception of safety which is gaining acceptance in France but which has as yet attracted little attention here; expressing safety not as a simple factor applied to stress or to load, but rather as a degree of improbability of failure.

This subject calls out for clear thinking; the basic idea which Guyon sets out is illuminating quite apart from its application to prestressing, and will appeal to those ardent spirits who, when confronted with a large factor of safety concealed in the load and in the stresses and in the dimensioning, insist on asking the Socratic question "what do we mean by safety."

This chapter is indicative of the high intellectual level of the work as a whole; on subjects which extend the writer less, his treatment is honest, lucid and thorough. There is perhaps a tendency discernible here and there to submit test results to a penetrating analysis which they are barely capable of supporting, but he never cheats and if his conclusions are of doubtful universality, he does not hesitate to say so.

An intriguing foreword by Freyssinet should be mentioned; in it a corner of the veil is lifted which conceals the soul of the engineer and the passions which move him.

In all, a book which, with minor revisions as knowledge increases, should constitute a standard work for many years to come.

A. KIRKWOOD DODDS.

History Builds the Town

By Arthur Korn. Lund Humphreys & Company, Ltd. £2 10s.

"THIS book has been written for a practical purpose: to establish first principles for the planning of our contemporary town." So begins Arthur Korn in this new addition to planning literature. For those of us who are still uncertain of these principles, it

provides at the very least an instructive and concentrated history, a history which not only adds to present knowledge but provides, in addition, a hundred plates of brilliantly selected illustrations.

Having defined the town as a social phenomenon whose growth and structure are determined by nature coupled with the technical ability of society, Mr. Korn proceeds in the footsteps of Engels, Childe and Breasted to consider the original townships of the river valleys; then to the classical cities of Greece and the Roman Empire; to the medieval cities in England and on the Continent, where the expansion of trade and the growth of self-government led to the creation of towns of a distinct and new character; to the Renaissance, and that change in outlook which led to the vista and the grand manner; and then to the contemporary metropolis and the conurbations of England and the United States. There can be little to criticize and much to praise in the author's presentation and assessment of historical facts. It is only when he moves on to establish those first principles which were promised in the introduction that I feel unhappy; for Mr. Korn has little sympathy with the works of Geddes, Mumford or Abercrombie. He deplores the direction of most analytical surveys, which seem to him to fail because, in his view, they do not begin with a proper consideration of the problem to be solved. On the other hand, he admires Le Corbusier's *Ville Radieuse*, which he says "can only be assessed in its proper historical setting, i.e., influenced by the theories formulated by both Miliutin and Korn in 1929." Miliutin and Korn both advocate the linear town pattern, the former in his plan for Magnitogorsk and the latter in the scheme prepared for London by the Mars Group.

The Mars Plan for London was not officially adopted, and unfortunately there is no evidence in this book to indicate whether Miliutin's plans have been carried out and, if so, whether they have proved successful. So the reader is left only with an idea—a paper pattern rather than a first principle—and a finely illustrated introductory history of planning.

There are one or two small points which deserve consideration in any future edition. *Kahune*, I believe, is commonly spelt without a final "e." The new capital created by the Emperor Constantine was not called Byzantium, but New Rome, and later Constantinople. The map of Roman Britain, which curiously appears on a page entitled "Early Mediæval England," has a footnote referring to headquarters of legions without a reference on the map. The map of eastern Germany on Plate 22 is not at all clear. And, as one who suffered through the to suggest greater accuracy in some of mis-spelling of his name, I should like the bibliographical references.

CECIL STEWART.

Town Design

By G. Frederick Gibberd. Architectural Press. £3 13s 6d.

IN writing this book Mr. Gibberd has undoubtedly made a useful contribution in the study of design in town and country planning as the main headings—Design of the complete town, Central areas, Industry, and Housing and the descriptive illustrations indicate.

One cannot accept, however, such extravagant claims as the publishers note on the dust jacket that the book fills a gap in existing town planning literature by providing the first major work to deal comprehensively with town design as an art. It just cannot be maintained in the face of the list of well-known books by others to whom the author gratefully acknowledges.

Much more serious, however, are certain contentions and even contradictory generalizations which appear in the first chapter as compared with the second regarding town planning. These leave one wondering just what the author is trying to put across. In fact the first two chapters are so divergent as regards the authors views on the relationship between town and country planning and "town design" as to give the impression they were not written by the same hand and that there is confusion in the author's mind in trying to divide town planning from its role as an art in order to place it under another activity to be called "Town Design." (One suspects that the division is really meant to be between the non-architect-trained and architect-trained exponents of town planning. If that is so his views do not make it clear.)

The author, in the first chapter, asserts that "Town Design" begins when town planning ends: "Town design as we would understand the term is by no means the same thing as town planning," despite the acknowledgement in the following paragraph that the latter calls for aesthetic sensibility. Yet, in chapter two, where the broad principles of town planning are outlined, he correctly states what is really the architect-town planner's oft repeated views that "Unless aesthetic sensibility is exercised in determining its (the Master Plan) overall pattern, in giving it a prevailing idea, and unless it is exercised in determining its major effects, the town can never be a really fine place to live in." Then again in chapter one: "It is usual in town planning to regard the built-up areas of the town as being a mass of buildings divided up by a lineal pattern of roads," as compared with "... because it (a town plan) decides a broad framework to which all subsequent designing is related, calls for aesthetic sensibility, and is the first

stage in town design; it is often the last design stage in town planning." On the other hand, chapter two relates the town planners real conception of town and country planning (at least the architect-trained) in saying that the Master Plan proposes "... a structure which integrates an existing topography with its own inherent beauty, and it is a structure which decides such large-scale aesthetic effects as the juxtaposition of a built-up area with natural landscape, the swing of an arterial road, or a distant prospect. Above all it is a structure which gives the town an overall character and unity."

One is left wondering whether Mr. Gibberd has not created this confusion from a laudable desire to stress the conviction that town and country planning cannot be properly or adequately exercised without the aesthetic sensibility inherent in the architect, though he rightly says that there are many architects who know nothing of town planning. He certainly points to the dangers of the engineer's conception of town planning which is mainly limited to the "scientific findings of road engineering."

Were it not for the excellently phrased and illustrated studies of the "raw materials" and their importance in interpreting the Master Plan or Town Plan and for the points made in favour of disciplining the architects "... urge to self expression in the interests of the scene as a whole," one would be tempted to ignore this first chapter and start with the second. It is when reading the second, which outlines the basis (the Master Plan) upon which the arrangement of the "raw materials" is founded, that one realizes there is in fact no difference between the proper conception of town and country planning and "town design." The change in terminology is therefore unnecessary and undesirable since they both should involve aesthetic matters in proper relation to economic and social matters. The link between the Master Plan and its interpretation should be inseparable for the reasons the author states in chapter two. Many of the advisory plans of the early post-war years, some extracts of which appear in this book, had the important function to perform of educating the lay councillor into what sort of interpretation should be made to give proper effect to the principle's enunciated. The detailed schemes and perspective sketches in those instances were the half-inch details, as it were, to illustrate the design. Yet in doing so the authors were often mistakenly thought to contend that all could and should be carried out forthwith in that form since much would of necessity be postponed to future generations. The pattern of the residential roads was, therefore, shown occasionally to illustrate the precinct principle and the proper function of each road if and when constructed. They certainly

were not meant to be carried out precisely as shown, for as Mr. Gibberd rightly says "... no one knows what form the dwelling will take in the future and how, therefore, it should be arranged."

One of the laudable points made in this first chapter is the reaffirmation of the town planning conception of the ancient Greeks in which the conception of building is seen to be a problem also of whole streets or whole towns and their environs and not merely a relationship between one building and another and its immediate neighbours. It is important for the architect to digest these views expressed in this first chapter because seldom, if ever, has it been acknowledged before the war as shown in the two examples illustrated of a Mediterranean water-front compared to that of an inter-war development on the Thames. In the former, an individual composition for a building is subordinated in the interest of the overall effect of a water-front scheme, while the latter clearly shows how undisciplined individual expression can produce an inferior overall effect.

Judging from the Paper read at the R.I.B.A. in November, 1949, by Mr. Lionel Brett and the extent of sympathy it received, there will be many who will disagree with the author because of the "disconcerting" effect of the implications of this wide conception of architecture which in practice so often requires architectural control to achieve it.

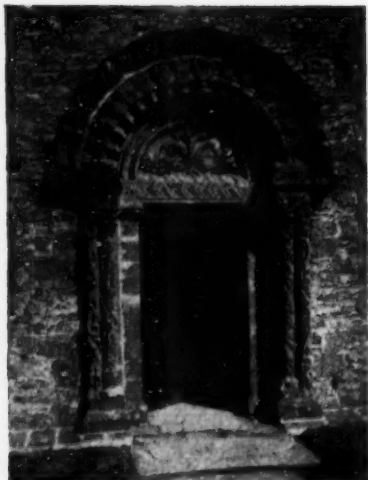
The remaining chapters deal with the problems of interpreting the Master Plan—the arrangement of the "raw materials" as particular parts of it come to be realized. Readers will find much of interest in the numerous studies illustrating the theories expressed in chapters one and two. No student could do better than to absorb and to appreciate the many-sided aspect of a building in the urban scene. It will enhance the value of his travels and bring home the importance of "form, colour and texture" to one's living environment.

DEREK PLUMSTEAD.

School Buildings in the Netherlands, 1950-1953

THIS is a report prepared by Boucentrum, at the request of the Netherlands Government, to give "a rough and unbiased picture of the present state of affairs with regard to the building of schools in the Netherlands. ..." It takes the form of a charmingly candid and unpretentious study of 25 recent school buildings. Site plans, building plans and sections, floor area analyses and brief specification of finishes and services are meticulously recorded; there are 15 photographs.

The English reader will be struck



The Council for the care of Churches propose to erect some kind of protection over the South Porch of Kilpeck Church, Herefordshire, to protect the carving from the weather.

perhaps by four points. First, the Netherlands educational system will appear extremely complicated. For example, there is elementary education (48 pupils per class), advanced elementary education (anything between 24 and 36 pupils per class), more advanced elementary education (36) and extraordinary elementary education (18), the latter roughly equivalent to our special schools.

Secondly, for any one type of school there seems to be no standard schedule of accommodation. Empirical answers are found to local problems. British educationalists will see many of their own settled convictions upset. For example, assembly halls, a statutory necessity in every British school, are rare in the Netherlands. Specialist practical rooms, reserved only for secondary schools in these Islands, are there often provided in schools for children of 6 to 12 years of age. By and large, schools consist of varying combinations of classrooms and practical rooms and little else. One can detect the strain of austerity nearly everywhere. Consequently, areas per pupil, after adjusting the differences in class sizes, are appreciably smaller than in this country.

Thirdly, the complexity of the educational system and the empirical approach to the amount and size of accommodation, although they imply a greater concern to provide physical environments appropriate to the "age, ability and aptitude" of children than we allow, in spite of the 1944 Education Act, obviously make administration of large-scale school building something of a nightmare. British post-war school building has been sharply distinguished by the two techniques of annual programming and limits of cost per place, both of which can only operate where there are broad and uniform standards. These clearly do not exist in the Netherlands.

Fourthly, it is impossible to avoid enquiring how the architect has fared in this mainly *laissez faire* situation. Unfortunately, the report gives no information on costs or on the constructions used. Everything in the document, however, suggests straightforward traditional brick buildings, most of them with pitched roofs. As a result of the latter point, plans tend to straight runs of classrooms plus corridor. In short what seems to have been happening in the Netherlands in 1950-53 is reminiscent of what was happening here in 1946-49 or even before the last war.

W. D. PILE.

Goods Vehicle Operation: Principles and Practice for Students and Executives

By C. S. Dunbar, M.Inst.T. Second Edition. Price 12s 6d (postage 5d) for Motor Transport by Iliffe & Sons Limited. 160 pages. 43 illustrations.

THIS practical guide covers every side of the working of a road haulage business, describing in much detail the planning and development of goods services of different kinds, office administration, branch and depot working, staff, costs, types of vehicle and similar matters.

This new and enlarged edition has been brought carefully into line with the provisions of the Transport Act, 1953, and a special chapter has been added on the operation of goods services in colonial and other overseas territories.

Cabma Register, 1953, of British Products and Canadian Distributors

Published jointly by Kelly's Directories Limited, and Iliffe and Sons Limited, for The Canadian Association of British Manufacturers and Agencies—Managers of the British Trade Centres in Toronto, Vancouver and Montreal. Price 42s net, by post 44s. Size 9½in x 7½in. Over 750 pages.

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The first section, the *Buyers' Guide*, is an alphabetical list of British products for Canada, with the names of

the British and Canadian suppliers classified under the product headings. Manufacturers', Distributors' and other advertisements appear in the next section. An alphabetical *Directory of British Manufacturers and Distributors* will be found in a separate section, where the British firms are first listed with full details, including their distribution arrangements in Canada, and a similar list of Canadian suppliers follows. Two further sections enable the products and their sources of supply to be identified from their *Proprietary Names* and *Trade Marks* respectively, and in order to ensure that the Register can be readily used throughout Canada, there is a complete French-English *Glossary* of the product headings used in the *Buyers' Guide*.

BOOKS RECEIVED

- Architectural Lettering, for Plans and Ornamental Design*, by Arthur E. Burke. Published by The Technical Press, Ltd., Price 48s.
- Bau Konstruktions Lehre*, by Martin Mittag. Published by C. Bertelsmann-Verlag. Price 4 gns.
- Bungalows and Small Houses*. Published by The Builder, Ltd. Price 5s.
- Buildings of England*. Three new vols.: County Durham; Derbyshire; Hertfordshire; by Nikolaus Pevsner. Penguin Books. 4s 6d each.
- Cape Asbestos 1893-1953*. Published for Cape Asbestos Co., Ltd., by Harley Publishing Co., Ltd.
- Directory of Quarries, Clayworks and Sand and Gravel Pits, etc.*, 13th edition 1953-54. Published by Quarry Managers' Journal, Ltd.
- Design of Structural Welded Details*, by F. H. Abrahams, A.M.I.Struct.E., M.Inst.W. Published by The Association of Engineers and Shipbuilding Draughtsmen.
- Federation of Master Builders, South West Region*. Year Book 1953.
- Medieval Carvings in Exeter Cathedral*, by C. J. P. Cave. Published by Penguin Books, Ltd. Price 4s 6d.
- Practical Masonry*, by E. G. Warland, M.I.Struct.E. Published by Sir Isaac Pitman & Son, Ltd. Price 50s.
- Annotated Model—Byelaus Volume 1. Buildings*, published by Charles Knight & Co., Ltd. Price 42s.
- An Approach to Planning*, by T. H. B. Burrough. Published by Sir Isaac Pitman & Sons. Price 21s.
- Boullées Treatise on Architecture*, by Helen Rosenau. Published by Alec Tiranti, Ltd. Price 21s.
- British Standards 1953 Year book*. Published by The British Standards Institution. Price 12s 6d.
- Brush Script*, by Donald Stevens. Published by B. T. Barsford, Ltd. Price 10s 6d.
- Canterbury Cathedral*, by Hugh Ross Williamson. Published by Country Life, Ltd. Price 12s 6d.
- A Century of Scientific Instrument Making, 1853-1953*. Published by W. F. Stanley & Co.
- Colour and Light at Work*, by Robert F. Wilson, F.R.S.A. Published by Seven Oaks Press, Ltd. Price 25s.
- Oxfordshire. A Shell Guide*, by John Piper. Published by Faber and Faber, Ltd. Price 12s 6d.
- A Symposium on Prestressed Concrete Statically Indeterminate Structures*. Published by Cement and Concrete Ass. Editor R. P. Andrew, M.A., Ph.D.

EXPERIMENTAL HOUSES BUILT BY THE SCOTTISH HOUSING ASSOCIATION AT SIGHTHILL, EDINBURGH FOR THE DEPARTMENT OF HEALTH FOR SCOTLAND

THIS demonstration has been arranged for the benefit of local housing authorities. Its purpose is to provide a practical illustration of some new methods of house-building that are recommended for study and development by local authorities. The demonstration block of four cottages shows a number of new features in planning, materials and construction. The houses and a representative collection of the materials and working drawings used in building them for exhibition to local authorities and the public from July 22nd to August 15th, 1953.

The exhibition shows, in the first place, various ways in which houses may be designed to use less softwood than is usual, or even none at all. Softwood has to be bought in hard currency, and there is always a risk that at some time house-building may be held up because we cannot afford to import enough. It is possible to use, in place of softwood, materials which are largely home-produced or which come from within the Sterling area. Local authorities can usefully study these methods so as to be ready to use them in case of need, and they may wish to make further experiments of their own.

In the second place, the houses illustrate some recommendations made earlier this year in the Report of the (Bailey) Committee on House Interiors. The Committee's task was to report on what action should be taken to increase speed and efficiency in the construction of house interiors. Local authorities are asked to try out the plans in the Report, to experiment with planning to a preferred dimension, and to look for ways of reducing labour on the site.

One of the demonstration houses has been furnished by the Scottish Committee of the Council of Industrial Design to show in detail how the accommodation and space can be used advantageously.

Although these houses illustrate new planning standards and a variety of materials and methods of construction, each house complies with the appropriate structural standards as regards strength and stability, durability and warmth, and resistance to weather, noise and fire, and with the best current building practice.

In this Note, Section II, which follows, discusses the work which has been done with the object of saving softwood. The next section, III, deals with the various ways in which these houses illustrate the recommendations of the Bailey Committee. Finally there is a short summary of conclusions.



II. WAYS OF SAVING SOFTWOOD

(a) The Scope of this Demonstration

There are two ways of reducing the amount of softwood in a house; either by using softwood itself more carefully, or by substituting other materials. This demonstration chiefly deals with the second method, but to use softwood carefully is of course of equal importance. A number of recent publications contain recommendations on the scientific and economical use of softwood which have been followed in the building of the demonstration houses. For example, the trussed rafters in house No. 4 are of the type designed by the Timber Development Association and are an example of the calculated use of softwood of normal quality. In house No. 4, also, there is a spine beam and post of stress graded softwood selected to take

a stress of 1,000 lb per square inch. This method of saving softwood entails thorough supervision of the specification, drawings and work on the site, if defects are to be avoided.

This demonstration is limited to two-storey houses. But, since three and four-storey building involves heavier floor loads and wider spans, it may well be that higher buildings would give better opportunities for using some of the materials.

While it has not been possible within the limits of a four-house block to achieve the most economical use of all the materials in the several methods of construction demonstrated, the houses at least show how each of the materials can be utilized and give an approximate idea of the cost (See Schedule I). Further information about the practical possibilities is provided by the Exhibition.

(b) Some Alternatives to the Use of Softwood

Schedule I shows some parts of a house in which alternative materials can be used, the amounts of softwood saved, and the estimated effects on the cost. Softwood is often the cheapest material in general use for some particular purpose and the additional costs of alternatives have to be carefully weighed. Costs of transport to sites, and of labour on the site, vary throughout the country, and the size of a housing development affects the costs differently in the case of different materials. The figures in Schedule I are subject to those qualifications. They are estimated as for a scheme of 50 houses built at Sighthill, Edinburgh, in 1953, and give a general idea of the possibilities, so far as the central belt of Scotland is concerned.

There has been no attempt to compare all possible constructions. For example, other constructions for the first floor are no doubt possible at about the same additional cost.

Schedule I shows that, of the constructions demonstrated, those which follow would add little or nothing to the cost, provided that they were used in areas where the materials were readily available:

(i) *Cold rolled steel roof truss, purlins, and ceiling bearers*

As used in these houses, one steel truss replaces three timber trusses in a wide-fronted house. The truss carries four steel purlins and two steel ceiling bearers. The steelwork is phosphated and stove-painted against rust, and is protected against fire by a double layer of $\frac{1}{2}$ in plasterboard. A strip of mineral wool above the normal plasterboard ceiling would, however, have sufficed. The single truss was found to be light to handle and raised no special problems. Common rafters and ceiling joists are of softwood.

An alternative arrangement would be to use two steel trusses, supporting softwood ceiling joists which would run between party walls, so as to dispense with the steel ceiling bearers. Or, in a house with a smaller frontage, steel trussed purlins might run between party walls. These alternative methods would be more economical than that used in house No. 3, for which a price is given above, if the frontage of the house were not above 21 feet. There was no opportunity in the project to try out the other constructions, but there is further information in the exhibition.

The cost of a steel roof construction varies considerably with the number of houses, until the number reaches about 500. This gives point to the Bailey Committee's view that small authorities, or in fact any authorities building a small number of houses to one design, could usefully agree to use uniform spans.

The use of steel in the first floor construction would also have been economic had it not been for the use of the double plasterboard ceiling for fire protection.

(ii) *Chipboard Flooring on Joists*

This material costs more than softwood floorboards but it is quicker to lay and has been found to be an economic alternative in bedrooms. The spacing of these boards should be designed as part of the working drawings and not left to be worked out on the site. The greatest economy and neatness is obtained when joists are spaced 16 inches centre to centre, for 4 feet wide boards, with noggings at about 2 feet centres in the other direction to give rigidity. There was no opportunity to use chipboard flooring in these houses, as it was not found sufficiently rigid for use above steel joists, but it could be used over softwood joists as shown in the exhibition of materials.

(iii) *Standard Metal Windows*

These should conform with B.S.990: 1945. If they are not true to shape they may be difficult to bed satisfactorily without sub-frames. In these houses wide flanged windows have been used without sub-frames, and the inner leaf of the cavity wall is formed of concrete blocks. The windows were not built in, but it was found preferable to employ bricklayers rather than joiners for the fixing, to avoid damage to the concrete blocks; the best



General view of the experimental houses built by the Scottish Housing Association at Sighthill, Edinburgh. See previous page for plan.

arrangement, however, would probably have been for the manufacturers to fix the windows.

(iv) *Cellular Plastic-cored Flush Doors*

There is no Code of Practice covering cellular-cored flush doors, but some tests have been applied to the doors used in these houses by the Department of Scientific and Industrial Research, and a leaflet giving the results is available on the literature stall.

Another point to be noted is the saving, in both softwood and cost, resulting from the use of a roof construction of the

T.D.A. trussed rafter type, instead of a traditional roof construction. The lighter roof construction entails extra care throughout fabrication and erection—in dealing with defects in timber, in ensuring correct timber connections, and in giving good support to purlins, etc.—but a design on these lines is shown to be worth while.

Finally Schedule I shows that if all the substitute materials listed in (i) to (iv) above were used together, the saving in softwood would amount to 0.56 standards in addition to the saving which might be obtained in any case by using a timber roof of the T.D.A. type.

THE EFFECT ON COST OF USING ALTERNATIVE METHODS OF CONSTRUCTION TO SAVE SOFTWOOD.

SCHEDULE I

"A"	"B"	"C"	"D"	"E"
Item and Specification	House in which used	Amount of softwood : Related to 5 Person House (839 sq ft)	Variation in Cost : Related to 5 Person House (839 sq ft)	Separate Items included in column "D"
HUNG GROUND FLOORS :				
<i>Normal construction :</i>				
1. Softwood joists and t. and g. flooring and sleeper walls : 4ft underbuilding	—	Joists—0.15stds. Flooring—0.18stds.	Nil	—
<i>Alternative Construction :</i>				
Prestressed concrete and clay block beam on 9in brick pier; prestressed concrete and clay block planks and hollow clay block infilling ; mastic asphalt flooring ; 4ft underbuilding	—	—	+£24	—
3. As (2) but with thermoplastic tile flooring :	No. 1	—	+£28	—

Schedule I is continued on facing page.

FIRST FLOOR :

1. Normal Construction : Softwood Joists @ 18in cts. and t. and g. flooring, 3/4in plasterboard ceiling, plaster finish	—	Joists : 0.27stds Flooring : 0.17stds	Nil	—
2. Alternative Construction : Prestressed concrete and clay block planks and clay block infilling, conc. topping, chip- board tile floor and wet plaster ceiling *††	No. 1	—	+£19	—
3. As (2) but with mastic as- phalte flooring	No. 2	—	+£14	—
4. Galv. pressed steel joists @ 18in cts., Softwood dwangs, hardwood flooring, two 3/4in plasterboard ceiling with re- cessed filled joints for lower sheet*†	No. 3	Dwangs : 0.02stds	+£13	Flooring +£11 Structure —£2 Ceiling +£4
5. Hardwood joists @ 18in cts., Softwood flooring, 3/4in plasterboard ceiling with re- cessed filled joints*	No. 4	Flooring : 0.17stds	—£5	Joists, etc., +£11 Ceiling —£16
6. Alternatively (not built in experiment) : As (5) with chipboard floor- ing and hardwood joists @ 16in cts.	—	—	—£6	Flooring —£3 Joist, etc. +£13 Ceiling —£16

ROOFS :

1. Normal Construction : Softwood rafters, ties etc., @ 18in cts., 40° pitch, 3/4in sark- ing, felt and plain tiles	—	Structure : 0.48stds Sarking : 0.22stds	Nil	—
2. Alternative Construction : Softwood T.D.A. type trussed rafters, 35° pitch, Softwood purlins and rafters, insulation board, felt, battens and inter- locking concrete tiles	No. 4	0.31stds	—£52	Structure —£18 Insul. Bd. —£15 Tiles —£19
3. As (2) but all timber in hard- wood	No. 1	—	—£32	—
4. As (2) but hardwood trusses, Softwood rafters, purlins, etc.	No. 2	0.25stds	—£43	—
5. As (2) but with rolled steel single truss, purlins and ceil- ing bearers, softwood rafters and ceiling joists	No. 3	0.21stds	—£45	—

JOINERY

(a) Windows :

1. Normal Construction : Softwood casement windows, outward opening	—	0.18stds	Nil	—
2. Alternative Normal Construc- tion : Standard metal windows in softwood sub-frames	—	0.03stds	—£2	—
3. Alternative Construction—Sav- ing Softwood : Standard wide-flanged metal windows	Nos. 1 -4	—	—£12 —£12	—
(b) Doors :				
1. Normal Construction : Four-panel internal door to B.S.459 Part I	—	0.11stds	Nil	—
2. Alternative Construction : Hardwood faced flush internal on cellular plastic core	Nos. 1 -4	—	+£4	—
(c) Finishings :				
Normal Constructions : Softwood skirtings, shelves, grounds, runners, facings, door frames and stairs, etc....	Nos. 3 and 4	0.25stds§	Nil	—
Alternative Construction : All items in hardwood, ply- wood shelves	Nos. 1 and 2	—	+£12	—

Total softwood in normal house of 839 sq ft is 1.68 standards.

Total softwood in house No. 1 as built (751 sq ft) is Nil standards.

Total softwood in house No. 2 as built (839 sq ft) is 0.25 standards.

Total softwood in house No. 3 as built (839 sq ft) is 0.67 standards.

Total softwood in house No. 4 as built (751 sq ft) is 0.92 standards.

* Excluding cost of post and spine beam—see Item I of Schedule II.

† Including extra cost due to use of screwed conduit in place of T.R.S.

‡ Making allowance for saving in brickwork due to shallow depth of floor.

§ For house with normal partitions.

III. THE REPORT OF THE BAILEY COMMITTEE ON "QUICKER COMPLETION OF HOUSE INTERIORS"

Earlier this year authorities received the Bailey Report and D.H.S. Circular No. 10/1953. These houses are built to the drawings referred to in paragraph 4 of the Circular: they are an adaptation to Scottish requirements of the plans shown in Figs. 20 and 21 of the Bailey Report. The plans will be sent to local authorities in a future Appendix to the Scottish Housing Handbook No. 6.

Houses 1 and 4 show the plan in Fig. 20 used at the ends of a block, and Houses 2 and 3 show the plan in Fig. 21 used for an intermediate house, but either plan is suited to either position.

A longer terrace of houses than it has been possible to build for this demonstration would make better use of plans such as these which provide through access within each house.

(a) Accommodation

The living space within these houses is apportioned on a basis which was introduced in the Bailey Report: that of the "aggregate ground floor living area." This is the combined area of living room and kitchen, and is measured in terms of net floor area in Scottish plans. For five or six people it should amount to 305 square feet, and for three or four people to 265 square feet. The plans also include a small store which provides a way through to the back of intermediate houses in a terrace, separate from the entrance hall. Both the ground floor and the upstairs accommodation are comparable in area with the recommendations in the Appendix to Housing Handbook No. 6 for a four-apartment house.

Houses Nos. 1 and 4 have a new type of plan suited to families of four people who need three bedrooms; for example, a family with two children of opposite sex. These two houses also illustrate another characteristic of the plans in the Report: Special use is made of the end houses of a terrace, and in this case as no outside doors were needed in the kitchens, a dining-kitchen became possible.

In the plans published in the Report, all areas were allowed to vary 3 per cent above or below the accepted standards to facilitate planning to a grid.

Areas in houses 1 to 4 are as follows:—

Houses 1 and 4: Overall area, 751 square feet (Scottish Rules of Measurement); living room, 180 square feet; dining-kitchen, 105 square feet; aggregate ground floor living area, 285 square feet; store and fuel, 53 square feet; bedroom 1, 120 square feet (excluding stair bulkhead); bedroom 2, 70 square feet; bedroom 3, 68 square feet (excluding stair bulkhead); bathroom, 36 square feet.

Houses 2 and 3: Overall area, 839 square feet (Scottish Rules of Measurement); living room, 208 square feet; kitchen, 88 square feet; aggregate ground floor living area, 296 square feet; store and fuel, 59 square feet; bedroom 1, 122 square feet (excluding stair bulkhead); bedroom 2, 108 square feet (excluding stair bulkhead); bedroom 3, 69 square feet; bathroom, 43 square feet.

House No. 1 has been furnished by the Scottish Committee of the Council of Industrial Design, to illustrate this new type of plan more vividly. The furnishings were supplied by Messrs. C. and J. Brown (House Furnishings), Ltd., of Newington. It is likely that in practice most families will combine new furniture with old, will buy new furnishings only room by room,

or will make up shelves and fittings at home. In any case, these furnishings show how the space might be used.

(b) Standardization and Planning to a Grid

The Bailey Report stresses the importance of standardizing dimensions. At present there is waste in fitting together standardized components such as doors and plasterboard partitions of which the dimensions do not coincide. The Committee point out that a wider use of components of uniform sizes might make it possible to apply speedy and efficient prefabrication methods to a number of house parts, such as roof timbers, which are not at present factory made. Until the time when there is a generally accepted policy on modular co-ordination, the Committee propose two interim measures: in the first place, they recommend that houses should be limited to a certain number of standard interior plans, of which the two built in this experiment are examples. Secondly, they suggest that plans should be designed to a preferred dimension of three feet.

(c) Use of British Standards

The main British Standards dealing with the building of small houses are listed in BS/PD1375, and they have been followed in these houses.

(d) Materials and Construction

Schedule I shows the materials and methods used in these houses in accordance with recommendations in the Bailey Report, and their approximate cost:—

Schedule II shows that the following methods of construction led to economies:

(i) Spine Beam and Post

As recommended in the Report, none of the houses contain any loadbearing partitions and there are instead two different types of internal spine beam and post. The small extra cost of this construction was found to be far more than offset by the saving in brickwork and foundations, quite apart from the saving in time before work could proceed under shelter.

(ii) Prefabricated Partitions

Storey height, three feet wide, cellular plasterboard units, with light wood frame for fixing, and filled joints. The joints between units should be spaced out on the working drawings, allowing $\frac{1}{2}$ in clearance between units and at door jambs. Such parts of the house as staircase walls and external angles of partitions also have to be carefully detailed.

If a standard of finish for this construction equal to that of the best normal practice is ensured by use of cover moulds, the cost is correspondingly increased: if, on the other hand, the cost is kept as low as possible, then the finish cannot equal that of plaster on block partitions. The cost given in the schedule is that of the details used in houses 3 and 4. It was also found that table tops, etc., needed support from legs, as a firm cantilevered fixing was not possible.

(iii) Plumbing and Drainage

The plumbing is on an experimental single-stalk system omitting in two instances the usual anti-siphon pipes. It was designed with the assistance of the Chief House Drainage Inspector of the local authority. In houses 1 and 4 a single rainwater, soil and vent pipe takes the three bathroom fittings and the combined tub and sink waste, without anti-siphon pipes. All connections are made from directly behind the stack to avoid raking branches on the garden elevation. In houses 2 and 3 the bathroom fittings and rainwater are also connected to a

THE EFFECT ON COST OF SOME RECOMMENDATIONS OF THE BAILEY COMMITTEE
SCHEDULE II

"A"	"B"	"C"	"D"
Item and Specification	House in which used	Amount of Materials Used: Related to 5 person house (839 sq. ft)	Variation in Cost: Related to 5 Person House (839 sq. ft)
USE OF POST AND BEAM:			
1. Normal Construction: Loadbearing brick ground floor partitions, plastered, 2ft 0in underbuilding	—	Bricks: 2,600	Nil
2. Alternative Construction: 9in x 9in Engineering brick pier, and beam of prestressed concrete and tile planks (conc. floor) 2½in foamslag partitions, plastered ...	Nos. 1 and 2	Bricks: 90	—£30*
3. Douglas Fir post and beam selected for a stress of 1,000 lb. per sq. in, 2½in foamslag partitions, plastered	Nos. 3 and 4	Softwood: 0.08 stds	—£24*
PARTITIONS:			
1. Normal Construction: 4½in Brick on ground floor, † 3in breeze on upper floor, plaster finish	—	Bricks: 1,600	Nil
2. Alternative Construction: 2-in Foamslag, plaster finish	No. 2	—	—£15
3. 3in Fair-faced precast cellular plaster, gypsum joint	No. 1	—	+£15
4. 2½in Fair-faced cellular-cored plasterboard, light-timber frame	Nos. 3 and 4	S.W. 0.05stds	—£21
CAVITY WALLS:			
1. Normal Construction: 1½in Brick cavity walls, plastered internally... ..	—	Bricks: 9,000	Nil
2. Alternative Construction: Brick outer skin and 4in lightweight concrete block inner skin, plastered internally... ..	Nos. 1, 2 and 3	Bricks: 4,500	+£18
3. As (2) but finished internally with ½in plasterboard nailed direct	No. 4	—	+£22†
PLUMBING AND DRAINAGE:			
1. Normal Construction: 3½in Soil pipe and combined rainwater pipe and waste; external branches... ..	—	Cast Iron: 3½ cwts	Nil
2. Alternative Construction: 3½in Combined rainwater, soil, vent, and waste pipe, internal branches... ..	Nos. 1—4	Cast Iron: 2½ cwts	—£6

Note:—The above alternative constructions are not loadbearing and to these figures must be added the cost of a Post and Beam construction which is dealt with above.

* No estimate can be made from these houses of the saving expected by the Bailey Committee due to quicker completion of structural work, as the houses contain many other innovations which affect progress.

† Excluding any foundations or underbuilding for brick partitions.

† No estimate can be made from these houses of the saving expected by the Bailey Committee through the use of dry finishes.

single pipe, but an internal vent is needed with this arrangement of fittings. The waste from tub and sink connects to the drain with a trap and fresh air inlet below ground level. There was no opportunity to use a multi-branch fitting instead of making up the system from standard junctions, but this would be preferable in future.

None of the existing building boards or partition units available for this experiment were found to suit exactly the dimensions of the plans. However, the various difficulties could readily be resolved by further design work and slight changes in the plan. The result would certainly prevent waste in material, and would immensely improve the finish of the rooms by obviating the need for odd patches of material and ensuring a neat joint between machine-made edges.

In order to save time in the construction of external walls, pre-stressed tile and concrete external lintels were used over the windows. The lintels were laid in place, and a few brick courses above them were bedded in cement mortar. As the lintels are so light to handle, lengths up to 19ft 2in were used conveniently. It was found that greater clearances than with normal precast lintels were needed above the metal windows—say $\frac{1}{2}$ inch instead of $\frac{1}{4}$ inch.

IV. CONCLUSIONS

Conclusions Regarding Ways of Saving Softwood

This investigation has shown that, given the supply and prices of materials as they are now, the softwood savings which can be made at little or no extra

[Continued on page 173]



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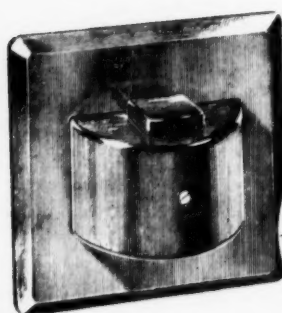
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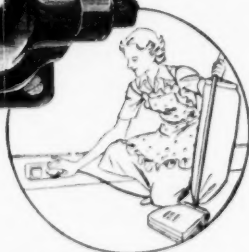
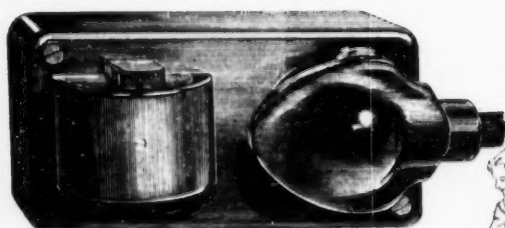
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Continued from page 172

cost in two-storey houses are those affecting the construction of the roofs, the joinery, and flooring at first floor level. About one-third of the softwood normally required might be saved by using other materials for these items. Local Authorities may, therefore, find it desirable to concentrate on the investigation of these items, or to consider ways of saving softwood in three or four-storey buildings. Should the need to save softwood become so urgent as to justify the extra cost involved, hardwood could be substituted in many different parts of a house; in similar circumstances a variety of other constructions would be possible such as the prestressed concrete and hollow tile first floor used in these houses.

Conclusions Regarding the Bailey Report

Local housing authorities will wish to consider the new standards of accommodations introduced by the Bailey Committee's Report in that they offer opportunities of obtaining substantial improvement in livability.

As regards the structural recommendations in the Report, this demonstration has established the usefulness of a spine beam and post as a substitute for load-bearing brick partitions. It has also shown that prefabricated partitions may be cheaper and quicker to erect than normal construction. Finally, it has shown that the increased use of prefabrication in house interiors entails more detailed design work than is called for in ordinary practice. While this work presented no special difficulty it could not all be accomplished in the short time available for this demonstration and it is hoped to continue with development work along these lines in the near future.

Top picture : *Experimental Houses, Sighthill : In the 4 apartment, 4 person house, built entirely without softwood, the Living Room (18ft x 10ft 3ins) is the full width of the house. The ceiling beam is of prestressed concrete and claytile supporting the first floor, allowing non-load bearing partitions as recommended in Bailey Report.*

Lower picture : *the Dining Kitchen (10ft 6ins square).*



I N P A R L I A M E N T

Great Expectations

Sir Ian Fraser asked the Minister of Works whether he would make a statement on current production of bricks and cement and roofing tiles; and how far supplies in the coming months would be adequate to maintain the present high rate of building. Sir David Eccles stated that the current rate of production of bricks, cement and roofing tiles compared with 1951 showed increases as follows: Bricks, 19 per cent; cement, 13 per cent; roofing tiles, 42 per cent. This was at the height of the building season and shortages of these materials were marginal. Further increases in the supply of all three were expected, so that an expansion in the total volume of new building could be expected. (July 28.)

Mr. Frederick Willey asked the Minister what steps he was taking to improve the supplies of bricks and cement in the north-east. To this Sir David Eccles replied that he had had conversations with brickmakers at both the local and national levels, and he maintained close touch with the cement industry. Supplies to the north-east had increased and he considered they would be adequate to maintain the rate of building.

Mr. Slater asked what increased storage space had been provided for the storage of cement in the north-east; and if the Minister was satisfied that the present storage space would hold an adequate supply to keep the building industry going during the winter, if the normal routes of supply should be affected again this year due to bad weather. Sir David Eccles said

that there had been small additions to the storage space in merchants' depots, at the works of concrete product manufacturers and at builders' premises. The storage facilities at the usual discharging ports and at the one cement works in the north-east were considered to be adequate. (July 28.)

Mr. Shurmer complained that there was still a shortage of bricks in Birmingham and that as a result house-building was being cut down by 10 houses a week; and asked what the Minister of Housing and Local Government was doing to accelerate the delivery of bricks. Mr. Marples stated that no complaint had been received from the corporation, but one contractor had approached the principal regional officer for assistance. As a result of action taken by the Ministry of Works there had been an improve-

ment in brick deliveries for this contract. (July 28.)

Rising Subsidies

Sir Stanley Holmes asked the Minister of Housing and Local Government to state the annual cost in the financial year ended March 31, 1946, and in each subsequent financial year, of Exchequer subsidies and local authorities' statutory contributions, respectively, in respect of new permanent houses and flats built in England and Wales since April 1, 1945. Mr. Marples informed him that the figures for Exchequer subsidies were:—

Financial Year	Aggregate Amount £
1946-47	172,282
1947-48	1,703,161
1948-49	5,355,058
1949-50	7,872,198
1950-51	10,161,123
1951-52	13,226,064
1952-53	18,038,844 (provisional)

Figures for rate contributions in respect of these houses were not available. In general, the normal rate fund contribution was one-third that of the Exchequer contribution. (July 27.)

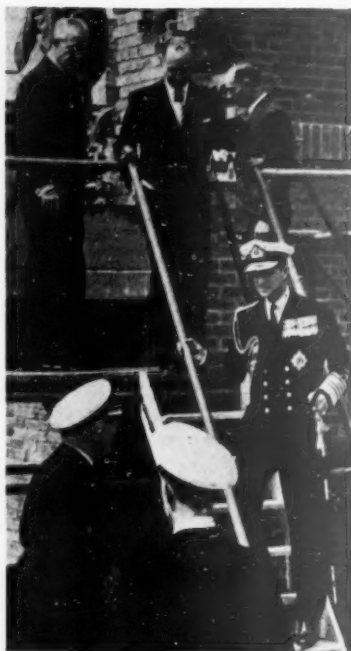
The corresponding figures for Scotland for new permanent houses and flats completed since April 1, 1945, were as follows, according to a reply by the Secretary of State on July 28:—

	Exchequer £	Rates £
1945-46	88,952	26,652
1946-47	194,689	58,147
1947-48	439,980	131,475
1948-49	908,316	267,444
1949-50	1,407,947	409,878
1950-51	1,900,256	548,129
1951-52	2,419,158	707,451
1952-53	3,121,862	947,824

Softwood Stocks

Mr. Harold Wilson asked the Minister of Materials if he would undertake, in pursuance of the assurance given by his predecessor, to consult the timber trade before releasing to the market strategic and emergency stock of softwood. Sir Arthur Salter replied that he would certainly continue the present practice of consulting representatives of the timber trade on the disposal of Government stocks.

Mr. Harold Wilson also asked what was the total amount of sawn softwood held on Government account at December 31 last and at the latest available date; and the extent by which the Minister intended to run down this stock during the remainder of this year. Sir Arthur Salter stated that, apart from strategic reserves, which it was not the practice to disclose, Government stocks of softwood consisted at June 30 of 51,000 standards, as against some 100,000 standards at the beginning of the year. It was the intention to continue selling this balance throughout this year. (July 27.)



H.R.H. The Duke of Edinburgh stepping down from the scaffolding of the new building for the Nautical College, Pangbourne after laying the foundation stone. The architect, Mr. John Grey, F.R.I.B.A. can be seen in the top left corner.

School with a View

Mr. Blenkinsop asked the Minister of Housing and Local Government whether he was aware of the proposal to build a school on the Morfa, just below Harlech Castle, in the forefront of one of the most famous views in Great Britain; and whether he would see that the proposal was considered at the highest level. Mr. Marples, the Parliamentary Secretary, said that the Minister was aware of this proposal. He understood that planning consent had been given to it, with the approval of the Snowdonia Park Joint Advisory Committee. A compulsory purchase order for the land had been made by the local education authority and submitted to the Minister of Education, who would consult with Mr. Macmillan before reaching a decision on the order.

Efficiency Lagging

Mr. Shackleton asked the Minister of Fuel and Power if he was aware that many of the high-efficiency open fires which had been delivered to the home market had not yet been sold; and what further steps he was taking to encourage their distribution, in accordance with the recommendations of the Ridley Committee. Mr. Joynson-Hicks, the Parliamentary Secretary, said that the reasons for the reduction in the rate of sale of improved appliances were being investigated to ascertain what further steps could be taken to encourage their distribution.

INDUSTRIAL NOTES

● Filmstrips on the Freyssinet System of Prestressing Concrete are now available for the use of teachers and students of engineering, and also for the practising engineer. These filmstrips, accompanied by lecture notes, are designed to demonstrate in detail the technique of the Freyssinet method of prestressing concrete and to illustrate its simpler forms of application in building. Both are produced and distributed by Diana Wyllie Filmstrip Production, 18, Pont Street, London, S.W.1. No. 1, *The Freyssinet System—Equipment and Methods*. No. 2, *The Freyssinet System—Development and Application*. Price 2gns, or 1gn each separately. The accompanying lecture notes are by A. J. Harris, B.Sc., A.M.I.C.E.

● The Industries Branch of the Board of Trade's Commercial Relations and Exports Department moved to Lacon House, Theobalds Road, London, W.C.1, on Tuesday, July 21. The new telephone number is Chancery 4411.

At the same time, its title was changed to "Export Services Branch." This title better describes the functions of the Branch, which will be unchanged, namely, to help United Kingdom manufacturers to find representatives or agents abroad; to assist United Kingdom businessmen going abroad; to provide information about overseas markets and to advise industrial organizations and individual firms on the opportunities and methods of exporting their goods; to provide information about tariff and import licensing regulations abroad; and to distribute information of use to exporters through the Special Register Information Service.

Enquiries relating to trade policy between the United Kingdom and individual countries overseas, and to general policy not peculiar to trade with any one country, e.g., the General Agreement on Tariffs and Trade (G.A.T.T.), commercial treaties, and relations with O.E.E.C. (the Organization for European Economic Co-operation) should continue to be directed to the Commercial Relations and Exports Department, Horse Guards Avenue, Whitehall, London, S.W.1 (Trafalgar 8855).

● For the first time since the war there will be official British Government participation in the Canadian National Exhibition, which is to be held in Toronto from August 28 to September 12, 1953.

The British display, called "From Britain," will comprise a selection of contemporary products of United Kingdom manufacturers. It will be housed in an exhibition stand 70ft long and 28ft wide, and will take the form of a central hall bounded by displays which face on to aisles running round the perimeter of the stand.

About 250 U.K. firms will be sending out some 520 exhibits which have been chosen as examples of the best in current British design and craftsmanship.

A list of the firms taking part, classified by regions of the United Kingdom and by trades, may be obtained from the Information Division of the Board of Trade, Horse Guards Avenue, Whitehall, S.W.1 (Telephone Trafalgar 8855, Extn. 2346) or from the Press Office, Council of Industrial Design, Tilbury House, Petty France, London, S.W.1. (Abbey 7080.)





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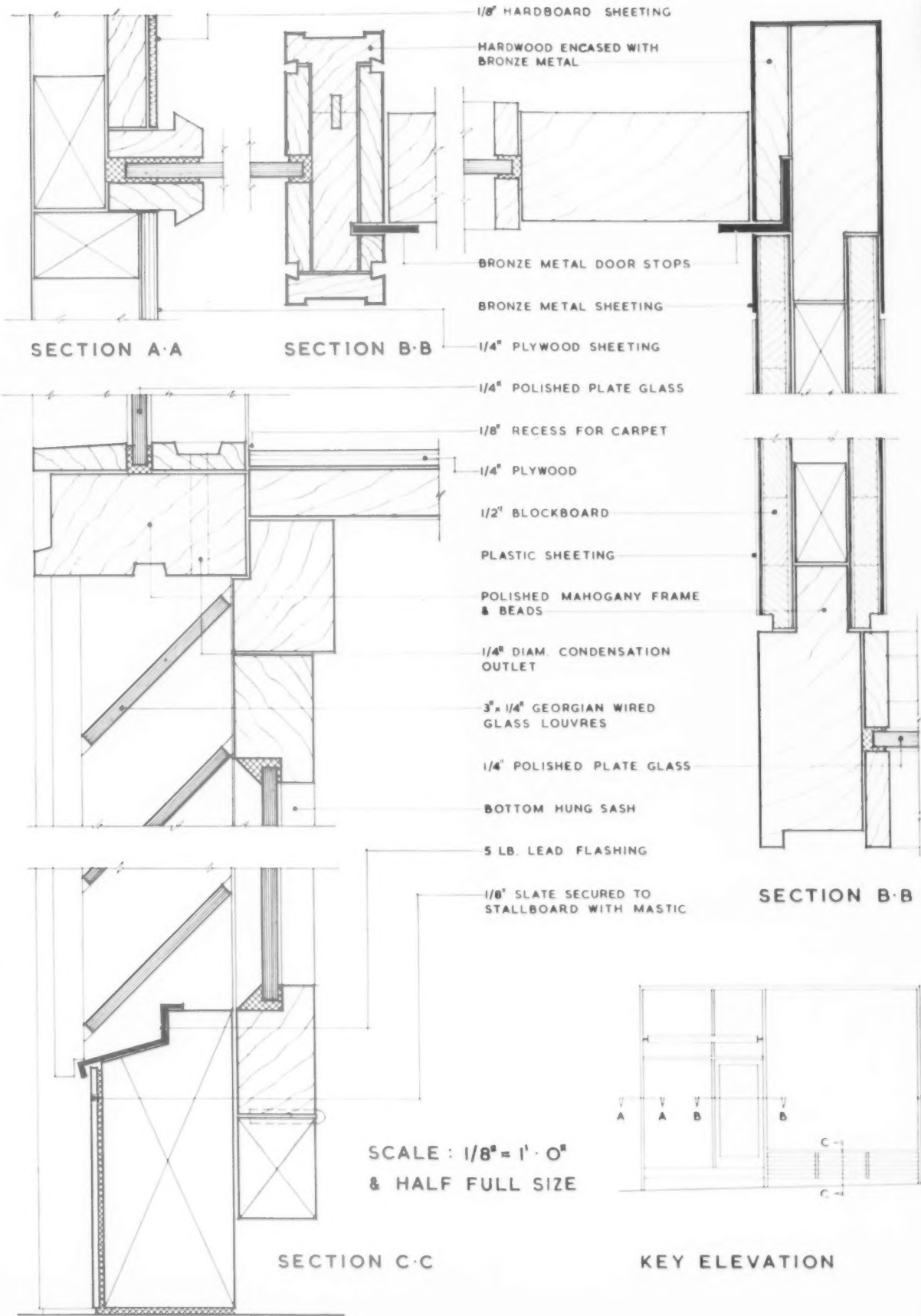
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Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the

CONTRACT • NEWS •

OPEN BUILDING

BARROW-IN-FURNESS B.C. (a) 5 blocks of 4 flats, Newbarns (South) Estate. (b) Borough Engineer, Town Hall. (c) 2gns. (e) Aug. 18.

BILLERICAY U.C. (a) 6 bungalows, Basildon Drive, Laindon. (b) Council's Surveyor, Council Offices, High Street. (c) 2gns. (d) Aug. 14.

BIRMINGHAM C.C. (a) (Contract 273B) 44 dwellings at Holly Bank Farm, King's Heath; (Contract 304) 12 flats at Barrows Lane, Sheldon; (Contract 318) 64 dwellings at Bangham Pit Farm, Bartley Green; (Contract 319) 4 flats at Victoria Road, Aston; (Contract 320) 4 houses at Folliot Road, Lea Hall. (b) City Engineer, Civic Centre, 1. (c) 2gns each contract. (d) Aug. 10.

BOWLAND R.C. (a) Block of 4 houses, 6 pairs of houses and 4 pairs of flats at Grindleton, near Clitheroe, and construction of necessary roads and sewers. (b) Messrs. S. Taylor, Son and Platt, 60, Manchester Road, Burnley. (c) 3gns, cheque payable to Council. (e) Aug. 20.

CANVEY ISLAND U.C. (a) 20 houses, Waarden Road. (b) Engineer and Surveyor, Council Offices. (c) 1gn. (e) Aug. 25.

COOKHAM R.C. (a) Adaptation of garage building into an office at the Council Offices, Oaklands, Bath Road, Maidenhead. (b) J. H. Beevis, Oaklands, Bath Road, Maidenhead. (c) Aug. 25.

CUMBERLAND C.C. (a) Garage for 2 ambulances at Workington Fire Station. (b) County Architect, 15, Portland Square, Carlisle. (e) Aug. 17.

EIRE-DUNDALK U.C. (a) 6 houses, Pearse Park, Dundalk. (b) Town Clerk, Town Hall. (c) 10gns. (e) Aug. 29.

ESSEX C.C. (a) Alterations and fire precautions at "Foxcroft," Children's Home, 100, High Street, Billericay (estimated cost approx. £2,850). (b) County Architect, County Hall, Chelmsford. (d) Aug. 8.

GREAT TORRINGTON B.C. (a) Conversion and adaptation of the old Agricultural Hostel at Calvesford Road, Torrington, into 2 dwelling units. (b) Messrs. Oliver and Dyer, The Strand, Barnstaple. (c) Aug. 24.

HELSTON B.C. (a) 2 blocks of 4 flats, Boslan Estate. (b) J. H. Snellgrove, 47, Coinagehall Street. (c) 2gns payable to Borough of Helston. (e) Aug. 18.

KINGSTON-UPON-HULL C.C. (a) 223 dwellings, Longhill Estate. (b) City Architect's Dept., Guildhall. (c) 1gn. to City Treasurer. (e) Aug. 17.

KIVETON PARK R.C. (a) Public conveniences at Wales Road, Kiveton Park. (b) Council's Surveyor, Council Offices. (c) Aug. 21.

LAUNCESTON R.C. (a) 3 houses at Bolventor and 2 houses at North Hill. (b) Engineer and Surveyor, 20, Western Road. (c) 2gns. (e) Aug. 29.

address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked ★ are given in the advertisement section.

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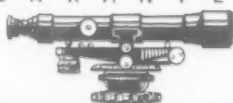
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LLANDUDNO U.C. (a) 26 flats and 23 houses, Tre Creuddyn Estate. (b) Engineer and Surveyor, Town Hall. (c) Aug. 18.

***LONDON—SOUTHGATE B.C.** (a) 1 semi-detached pair of houses, Cowper Gardens, N.14. (b) Borough Engineer and Surveyor, Town Hall, Palmers Green, N.13. (c) 2gns. (d) Aug. 19. (e) Sept. 28. See page 26.

LONDON—WANDSWORTH B.C. (a) 3-storey block of shops and 20 flats at Rinaldo Street, Balham, S.W.12 (reinforced concrete-framed structure with brick panel walls). (b) Town Clerk, Municipal Buildings, S.W.18, with details of experience, plant, technical and supervisory staff available, names of 2 technical and 2 financial referees. (d) Aug. 19.

LOUTH R.C. (a) 12 houses at Holton-le-Clay; 20 houses at Tetney; 8 houses at North Thoresby. (b) Messrs. Wm. Saunders and Partners, 24, Castle Gate, Newark-on-Trent. (c) 3gns. (e) Aug. 24.

MANCHESTER C.C. (a) Alterations and additions for a school meals scullery at St. Bridgid's R.C. Girls' School, Bradford, Manchester. (b) City Architect, Town Hall. (c) Ign. (e) Aug. 14.

MANCHESTER C.C. (a) Alterations at the Central Fire Station, London Road, to form kitchen and dining rooms. (b) City Architect, Town Hall. (c) Ign. (e) Aug. 15.

NEWCASTLE REGIONAL HOSPITAL BOARD. (a) Building to house Regional Blood Transfusion Centre, Pathological Department and Area Public Health Laboratory of Medical Research Council (brick-faced reinforced concrete-framed building). (b) Board's Secretary, "Dunira," Osborne Road, Newcastle-upon-Tyne, 2. (d) Aug. 15.

NEWMARKET R.C. (a) Public conveniences at Fountain Road, Soham. (b) Council's Surveyor, Council Offices, Park Lane. (c) Aug. 29.

NEWTON AND LLANIDLOES R.C. (a) 12 houses at Carno. (b) Walter B. Bond, Windsor House, 49-50, Calthorpe Road, Edgbaston, Birmingham, 15. (c) 2gns. (d) Aug. 8.

***NORTHFLEET U.C.** (a) 6 houses, Colyer Road. (b) Engineer and Surveyor, Council Offices. (c) 2gns. (e) Aug. 27. See page 26.

N. IRELAND—ARMAGH. (a) Erection of w.c. blocks, etc., at Clady Primary School. (b) John L. O'Hagan, 3, Kildare Street, Newry. (c) Aug. 14.

N. IRELAND—NORTHERN IRELAND HOUSING TRUST. (a) 157 dwellings at Andersonstown No. 3(B). (b) Trust Offices, 12, Hope Street, Belfast. (c) £3. (e) Aug. 19.

OGMORE AND GARW U.C. (a) 28 flats, Glynllan site, Blackmill. (b) Engineer and Surveyor, Council Offices, Brynmynyn, nr. Bridgend. (c) 3gns. (e) Aug. 26.

PLYMOUTH C.C. (a) 4 additional classrooms at College Road Primary School, Keyham. (b) City Architect, Seymour Road. (c) 3gns payable to Corporation. (d) Aug. 10.

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RICHMOND (SURREY) B.C. (a) Block of 4 flats at Alexandra Road and also at Windsor Road. (b) Borough Engineer's Office, Hotham House, Heron Court. (c) 2gns. (e) Sept. 3.

ST. ALBANS R.C. (a) 3 Marley lock-up garages at South Close, St. Stephen's. (b) Engineer and Surveyor, Council Offices, 43, Upper Lattimore Road. (c) 2gns. (e) Aug. 22.

SCOTLAND—BURGH OF SELKIRK. (a) 21 houses, Bannerfield site, Selkirk (separate trades). (b) Messrs. Basil Spence and Partners, 40, Moray Place, Edinburgh, 3. (e) Aug. 15.

SHEFFIELD C.C. (a) Scheme No. 3 (Sections 7, 12, 13) 195 dwellings; (Sections 9, 11) 124 dwellings; (Sections 8, 8A) 158 dwellings; and Scheme No. 2, 214 dwellings on the Greenhill Estate. (b) City Architect, City Architect's Dept., Town Hall, 1. (c) £5. (e) Aug. 17.

STAFFORDSHIRE C.C. (a) Extensions and alterations to the Poplars Nursery, Lichfield. (b) Council's Clerk, County Buildings, Stafford. (c) 4gns. (d) Aug. 10. (e) Aug. 31.

STOKE-ON-TRENT C.C. (a) Erection of Stage 1 of college of ceramics and pottery (2 main buildings, teaching block and workshop block). (b) City Architect, Kingsway Chambers, Kingsway, with full particulars of comparable contracts carried out. (d) Aug. 17. (e) Oct. 9.

WEOBLEY R.C. (a) 2 blocks of 6 houses, 4 blocks of 5, 1 block of 4, 1 block of 3 and 1 pair of houses, Burton Wood site. (b) Council's Clerk, Council Offices. (c) 3gns. (d) Aug. 8. (e) Sept. 12.

WEST RIDING STANDING JOINT COMMITTEE. (a) 4 houses at Heckmondwike; 1 house at Hemingfield; 1 house at Woodkirk; 2 houses at Knottingley; 1 house and office at Tickhill; 3 houses at Halifax; 1 house and office at Micklefield; 2 houses and garage at Ben Rhydding; for police. (b) County Architect, "Bishopgarth," Westfield Road, Wakefield. (c) 2gns. (e) Aug. 28 (separate tenders for each site).

WOLVERHAMPTON B.C. (a) 2 pairs of police houses at Pritchard Avenue, Wednesfield; 2 pairs at Westacre Crescent, Tettenhall; 2 pairs at Plascom Road, Wolverhampton. (b) Borough Engineer, Town Hall; stating site or sites. (c) 2gns. (d) Aug. 14.

MISCELLANEOUS

DORSET C.C. The Council is preparing a list of Contractors for general building works; maintenance and repairs; decorations up to a maximum of £50,000 per contract. Application forms from County Architect, County Hall, Dorchester.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

LEICESTER CITY COUNCIL. (1) 34 houses. (2) Braunstone Estate. (3) G. W. and R. Rudkin Bros., Ltd., 3, Ainsdale Road, Leicester. (4) £40,151.

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LLANDILO (CARM.) U.D.C. (1) 32 houses. (2) Adjoining Heol-y-Garreglas. (3) J. Morris and Son, Penybanc, Llandilo. (4) £49,088.

STOKE NEWINGTON B.C. (1) 48 flats. (2) Burma Mews. (3) Stewart and Partners, Ltd., 105, Baker Street, London, W.1. (4) £88,463.

SUTTON COLDFIELD B.C. (1) Housing contracts. (3) Henry Boot and Sons, Ltd., Beeches Road, Birmingham, 22; Butler Bros. (Birmingham), Ltd., Sutton Road, Birmingham, 23; Crossley Bros. (Builders), Ltd., Albert Road, Birmingham, 9; A. E. Jones, Birmingham. (4) £65,050, £26,775, £20,980.

LEWISHAM B.C. (1) Housing contracts. (3) W. J. Simms, Sons and Cooke, Ltd., Mount Street, London, W.1. (4) £65,390. (3) H. T. Oliver and Sons, Ltd., 371, Clapham Road, S.W.9. (4) £45,400. (3) H. T. Oliver and Sons, Ltd. (4) £23,205. (3) Bunting Construction Co., Ltd., 73, Acre Lane, S.W.2. (4) £30,176. (3) Galbraith Bros., Ltd., 61, Bartholomew Close, London, E.C.1. (4) £58,780. (3) Henry Kent (Builders), Ltd., 51, Beacon Road, S.E.13. (4) £22,990.

SHOREDITCH B.C. (1) Blocks of dwellings. (2) Alford Court and Murray Gate. (3) H. Richardson and Son, Ltd., Slades Green Road, Crayford, Kent. (4) £81,127.

BRISTOL CORPORATION. (1) Junior department. (2) West Town primary school. (3) R. Costain, Ltd., Dolphin Square, London, S.W.1. (4) £56,093.

BIRMINGHAM CORPORATION. (1) 14 shops, 16 flats. (2) Chestnuts Estate. (3) C. Bryant and Son, Ltd., Whitmore Road, Birmingham. (4) £68,888.

BRISTOL CORPORATION. (1) Blocks of shops and offices. (2) Union and Fairfax Streets. (3) C. A. Hayes and Sons, Ltd., Stork House, Hotwells Road, Bristol. (4) £39,663. (1) Rebuilding Haymarket end of Lower Arcade. (3) Wilkins and Coventry, Ltd., 91, Cumberland Road, Bristol. (4) £22,289.

LIVERPOOL E.C. (1) Infants dept. (2) Blackmoor Park primary school. (3) Rimmer Bros. (Liverpool), Ltd., Cheadle Avenue, Liverpool. (4) £51,769.

BARKING B.C. (1) 29 maisonnettes. (2) London Road. (3) Direct labour. (4) £62,273.

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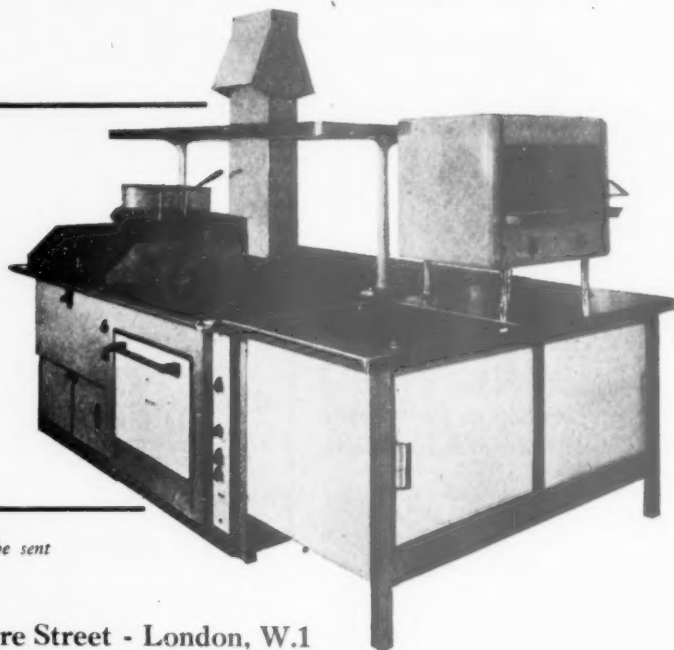
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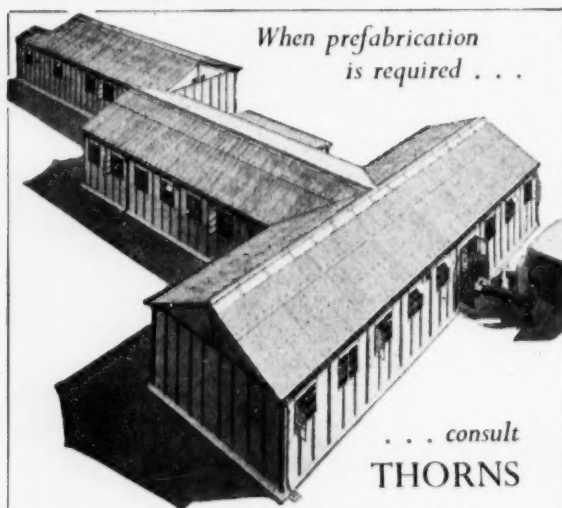
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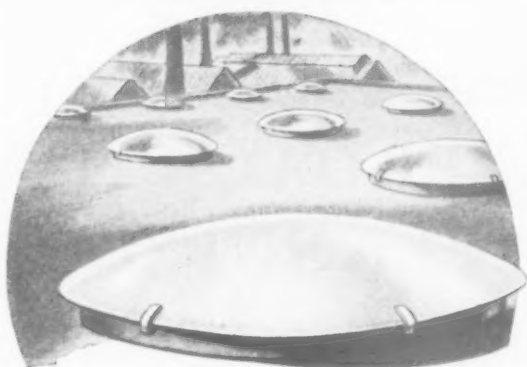
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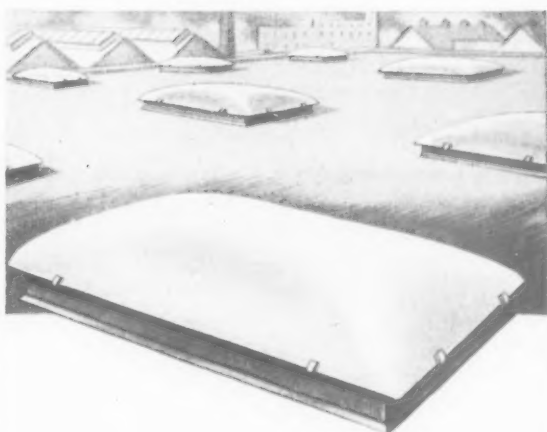
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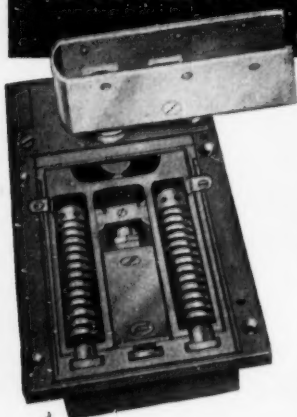


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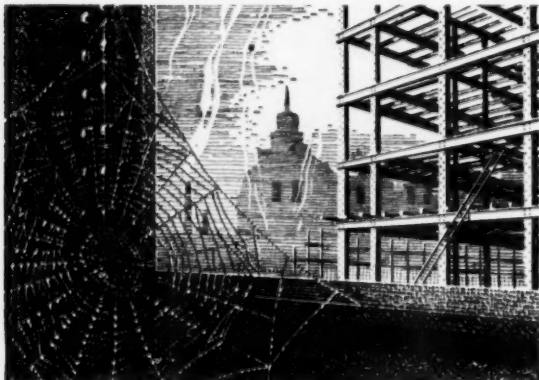
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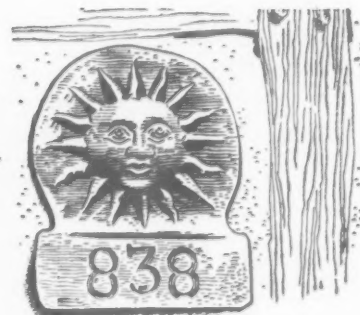
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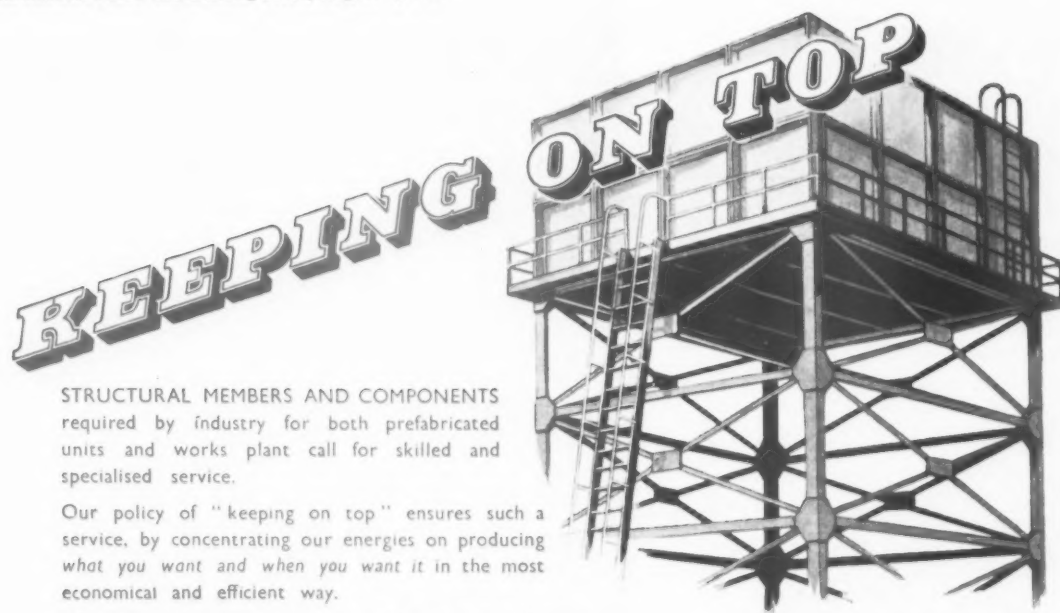
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The provisions of the Local Government Superannuation Act, 1937 will apply.

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Forms of Application, to be obtained from the undersigned, should be completed and submitted not later than noon on Thursday, the 27th August, 1953.

G. B. BLACKALL,
Clerk of the Council.

Council Offices,
Corby,
Northants.
27th July, 1953. [7245]

BEESTON AND STAPLEFORD URBAN DISTRICT COUNCIL.

APPLICATIONS are invited from experienced Architectural Assistants for the following appointment in the Engineer and Surveyor's Department:—SENIOR ARCHITECTURAL ASSISTANT, A.P.T. GRADE VI (£670-£735). Applicants should be Registered Architects and/or Associate Members of the Royal Institute of British Architects, and should have practical experience in the design of housing estates and general municipal buildings.

The appointment will be in accordance with the National Scheme of Conditions of Service.

Applications, together with the names of two persons to whom reference may be made, should be sent to the undersigned not later than 22nd August, 1953.

Candidates must disclose whether to their knowledge they are related to any member or senior officer of the Council. Canvassing, directly or indirectly, will be a disqualification.

H. D. JEFFRIES,
Clerk of the Council.

Town Hall,
Beeston, Nottingham. [7246]

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Applications, stating age, qualifications and experience, accompanied by copies of two recent testimonials, must be sent in envelopes endorsed "Assistant Architect" to the Borough Engineer and Surveyor, 14, Craufurd Rise, Maidenhead, not later than Friday, 21st August, 1953.

The Council may be in a position to offer housing accommodation.

Canvassing will be a disqualification and candidates must disclose whether to their knowledge they are related to any member or senior officer of the Council.

STANLEY PLATT,
Town Clerk.

Guildhall, Maidenhead.
July, 1953. [7255]

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APPOINTMENTS—contd.

COUNTY OF KENT.

APPOINTMENT OF COUNTY ARCHITECT.

APPLICATIONS are invited for the above-mentioned appointment from Fellows or Associate Members of the Royal Institute of British Architects at a salary within the scale of £2,200 rising by annual increments of £100 to £2,700 a year.

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The appointment is pensionable and the successful candidate will be required to pass a medical examination.

Further particulars and form of application may be obtained from the undersigned to whom applications should be delivered by not later than the 30th September, 1953.

Canvassing, either directly or indirectly, will operate as a disqualification.

W. L. PLATTS,

Clerk of the County Council.
County Hall, Maidstone.
27th July, 1953. [7250]

URBAN DISTRICT OF FELTHAM

TWO TEMPORARY ARCHITECTURAL ASSISTANTS required—Salaries £765 per annum. Applicants must be Registered Architects and have had experience chiefly in Local Authority Housing.

Forms of application, obtainable from the undersigned, must be returned, accompanied by copies of two testimonials, not later than 4th September, 1953. Canvassing directly or indirectly will disqualify and applicants must disclose, in writing, whether to their knowledge they are related to any member or of the holder of any senior office under the Council.

M. W. COUPE,
Clerk of the Council.

Council Offices,
Feltham, Middlesex. [7248]

BOROUGH OF EALING.

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E. J. COPE-BROWN,
Town Clerk.

Town Hall,
Ealing, W.5. [7249]

CONTRACTS

URBAN DISTRICT COUNCIL OF NORTHFLEET.

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TENDERS are invited for the erection of SIX HOUSES (traditional brick construction) in COLYER ROAD, Northfleet.

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Bills of Quantities and Form of Tender can be obtained from the Engineer and Surveyor at the address below on and after August 10th, on payment of a deposit of two guineas, which will be returned on receipt of a bona-fide tender which is not subsequently withdrawn.

Tenders in plain sealed envelopes, endorsed "Tender for Houses" and bearing no name or mark indicating the sender, must reach the undersigned not later than 12 noon on Thursday, August 27th, 1953. The priced Bill of Quantities should be enclosed in a separate sealed envelope.

The Council do not bind themselves to accept the lowest or any tender.

W. G. FUTCHER,

Clerk of the Council.
Council Offices,
Northfleet,
Kent.
July, 1953. [7247]

CONTRACTS—contd.

BOROUGH OF SOUTHGATE.

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It is expected that the relevant documents will be forwarded to tenderers not later than Monday the 7th September, 1953. Documents in accordance with the instructions on the Form of Tender, are to be returned to the undersigned not later than Monday, the 28th September, 1953.

Plans, etc., can be seen at the Town Hall, Palmers Green, N.13, during normal office hours.

The Council do not bind themselves to accept the lowest or any Tender, and the acceptance of any Tender will be subject to the approval of the Ministry of Housing and Local Government.

GORDON H. TAYLOR,
Town Clerk.

Town Hall,
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27th July, 1953. [7251]

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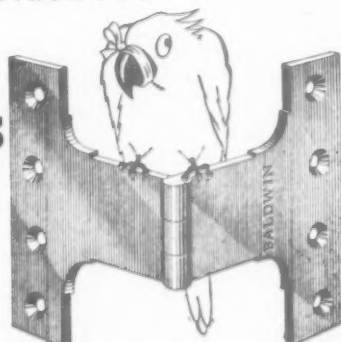
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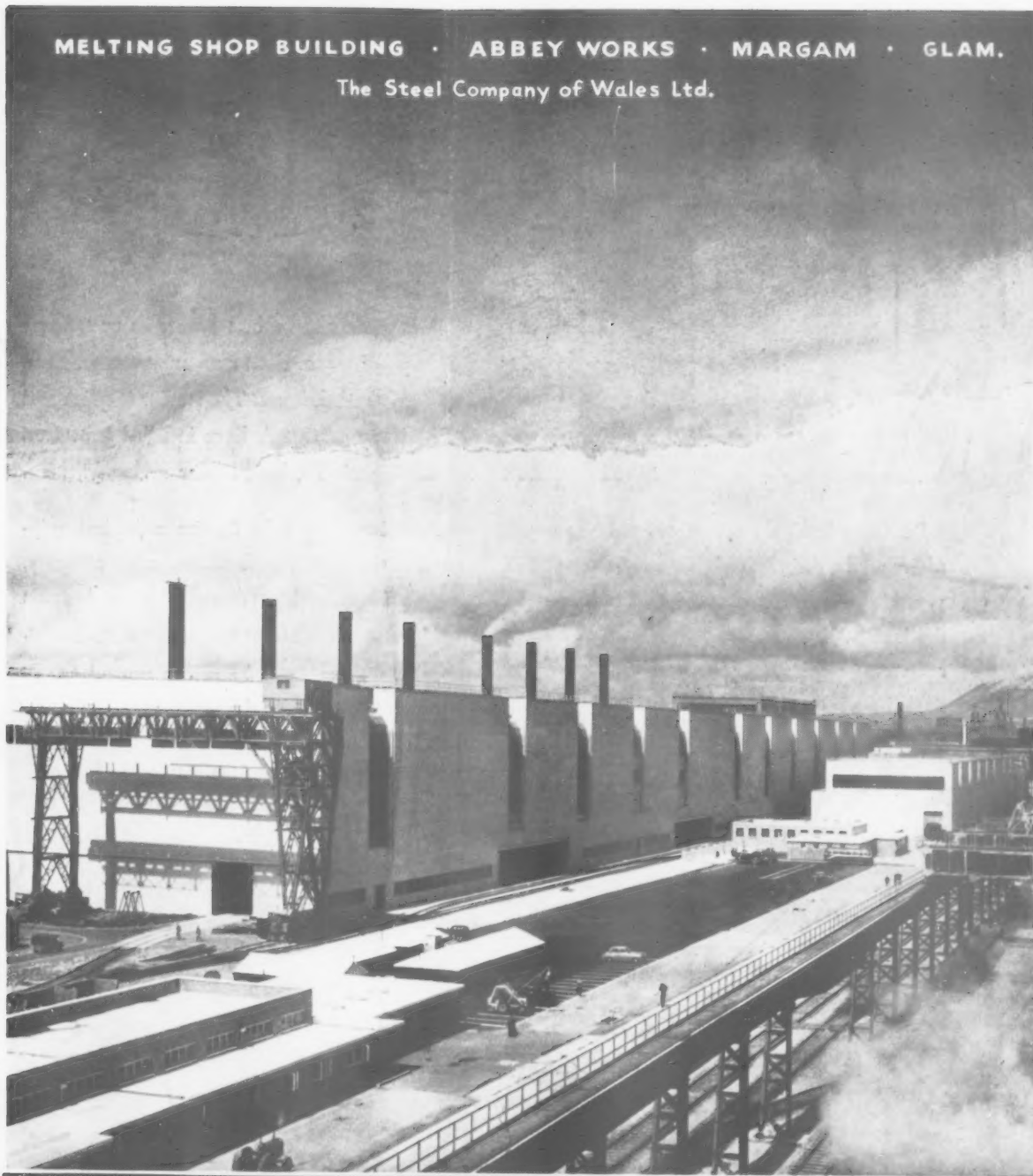


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